

Mini Hi-Fi Component System

Operating Instructions



*MHC-WZ80D
MHC-WZ8D*

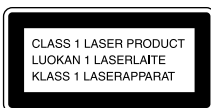
WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To prevent fire, do not cover the ventilation of the apparatus with news papers, table-cloths, curtains, etc. And don't place lighted candles on the apparatus.

To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.



This appliance is classified as a CLASS 1 LASER product. This label is located on the rear exterior.

The following caution label is located inside the apparatus.



Don't throw away the battery with general house waste, dispose of it correctly as chemical waste.

Except for European model



ENERGY STAR® is a U.S. registered mark. As an ENERGY STAR® partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

This system incorporates Dolby* Digital, Dolby Pro Logic (II) adaptive matrix surround decoder, Digital Cinema Sound, and the DTS** Digital Surround System.

* Manufactured under license from Dolby Laboratories.

"Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

** Manufactured under license from Digital Theater Systems, Inc. "DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.

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How to use this manual





- This manual mainly explains operations using the remote, but the same operations can also be performed using the buttons on the CD/DVD player having the same or similar names.
- European and Latin American models are used for OSD (on-screen display) illustration purposes.
- The following symbols are used in this manual.



Symbol	Meaning
	Functions that can be used with DVDs
	Functions that can be used with VIDEO CDs
	Functions that can be used with audio CDs
	Functions that can be used with MP3 audio tracks
	Functions available for JPEG files

Playable discs

You can play back the following discs on this system. Other discs cannot be played back.

List of playable discs


Format of discs	Disc logo	Contents
DVD VIDEOS		Audio + Video
VIDEO CDs		Audio + Video
Audio CDs		Audio
CD-R/CD-RW (audio data)		Audio

Format of discs	Disc logo	Contents
CD-R/CD-RW (MP3 files)		Audio
CD-R/CD-RW (JPEG files)		Video

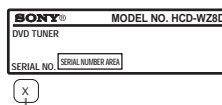
The “DVD VIDEO” logo is a trademark.

Region code of DVDs you can play on this system

Your system has a region code printed on the back of the unit and will only play DVDs labeled with identical region code.

DVDs labeled  will also be played on this system.

If you try to play any other DVD, the message “Playback prohibited by area limitations.” will appear on the TV screen. Depending on the DVD, no region code indication may be labeled even though playing the DVD is prohibited by area restrictions.



Region code

Discs that this system cannot play

- CD-ROMs (except for extension “.MP3”, “.JPG” or “.JPEG”)
- CD-Rs/CD-RWs other than those recorded in the following formats:
 - music CD format
 - video CD format
 - MP3/JPEG format that conforms to ISO9660*1 Level 1/Level 2, Joliet or Multi Session*2
- Progressive JPEG format files cannot be played on this system.
- Data part of CD-Extras

continued

- DVD-RWs in VR mode (DVD-RWs created in VR (Video Recording) mode allow the contents to be programmed or edited.)
- DVD-ROMs
- DVD Audio discs
- A DVD with a different region code.
- Audio tracks in MP3PRO format.
- A disc that has a non-standard shape (e.g., card, heart).
- A disc with paper or stickers on it.
- A disc that has the adhesive, cellophane tape, or a sticker still left on it.

^{*1} ISO9660 Format

The most common international standard for the logical format of files and folders on a CD-ROM. There are several specification levels. In Level 1, file names must be in the 8.3 format (no more than eight characters in the name, no more than three characters in the extension “.MP3” or “.JPG”) and in capital letters. Folder names can be no longer than eight characters. There can be no more than eight nested folder levels. Level 2 specifications allow file names and folder names up to 31 characters long. Each folder can have up to 8 trees.

For Joliet in the expansion format (file and folder names can have up to 64 characters) make sure of the contents of the writing software, etc.

^{*2} Multi Session

This is a recording method that enables adding of data using the Track-At-Once method. Conventional CDs begin at a CD control area called the Lead-in and end at an area called Lead-out. A Multi Session CD is a CD having multiple sessions, with each segment from Lead-in to Lead-out regarded as a single session.

CD-Extra: This format records audio (audio CD data) on the tracks in session 1 and data on the tracks in session 2.

Notes on discs

- This system can play CD-R/CD-RW discs edited by the user. However, note that playback of some discs may not be possible depending on the recording device used for recording or the disc condition.
- CD-R and CD-RW discs that have not been correctly finalized (processing to allow play by a normal CD player) cannot be played.
- CD-R and CD-RW discs recorded in multi-session that have not ended by “closing the session” are not supported.
- The system may be unable to play MP3/JPEG format files that do not have the extender “.MP3”, “.JPG” or “.JPEG”.
- Attempting to play non-MP3/JPEG format files that have the extender “.MP3”, “.JPG” or “.JPEG” may result in noise or malfunction. Playback is possible up to 8 levels.
- With formats other than ISO9660 level 1 and 2, folder names or file names may not be displayed correctly.
- The following discs take a longer time to start playback.
 - a disc recorded with complicated tree structure.
 - a disc recorded in Multi Session.
 - a disc to which data can be added (non-finalized disc).
- Some CD-Rs, CD-RWs, DVD-Rs or DVD-RWs (in video mode) (DVD-RWs created in video mode have the same format as a DVD VIDEO) cannot be played on this system depending upon the recording quality or physical condition of the disc, or the characteristics of the recording device. Furthermore, the disc will not play if it has not been correctly finalized. For more information, see the operating instructions for the recording device.
- A disc recorded in packet write format cannot be played.

Note on playback operations of DVDs and VIDEO CDs

Some playback operations of DVDs and VIDEO CDs may be intentionally set by software producers. Since this system plays DVDs and VIDEO CDs according to the disc contents the software producers designed, some playback features may not be available. Also, refer to the instructions supplied with the DVDs or VIDEO CDs.

Music discs encoded with copyright protection technologies

This product is designed to playback discs that conform to the Compact Disc (CD) standard. Recently, various music discs encoded with copyright protection technologies are marketed by some record companies. Please be aware that among those discs, there are some that do not conform to the CD standard and may not be playable by this product.

Cautions when playing a disc that is recorded in Multi Session

- This system can play Multi Session CDs when an MP3 audio track is contained in the first session. Any subsequent MP3 audio tracks recorded in later sessions can also be played back.
- This system can play Multi Session CDs when a JPEG image file is contained in the first session. Any subsequent JPEG image files recorded in later sessions can also be played back.
- If audio tracks and images in music CD format or video CD format are recorded in the first session, only the first session will be played back.

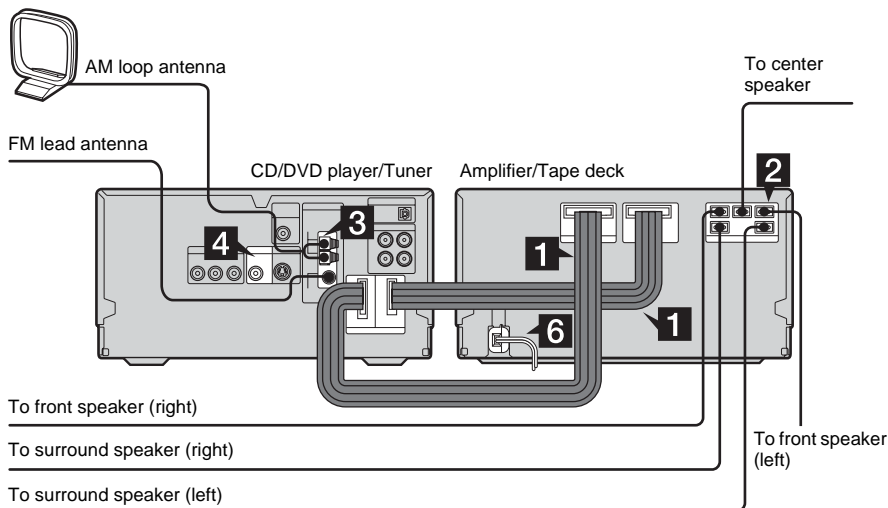
Copyright

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Getting Started

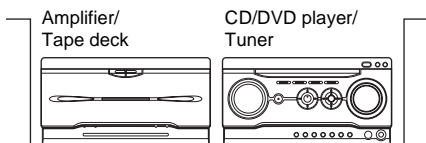
Hooking up the system

Perform the following procedures **1** to **7** to hook up your system using the supplied cords and accessories. European model is used for illustration purpose.



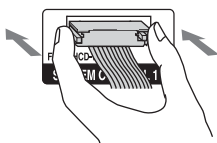
Preparation

Place the components as shown below.



1 Connect the system control cables to the SYSTEM CONTROL connectors on the tape deck.

Connect to the same numbered jack in the order indicated on the rear panel.



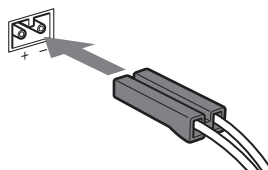
Note

The system cable is used to send signals and electricity between the components for interlinked operation.

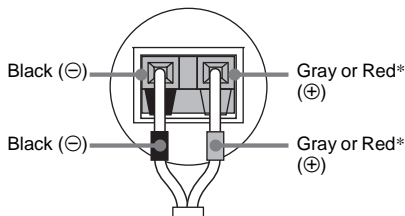
Be sure to insert the connector horizontally until it clicks into place. Otherwise the system will not operate correctly.

2 Connect the speakers.

Be sure to match the appropriate speaker cords from the speaker terminals to the corresponding SPEAKER terminals on the tape deck.



Speakers

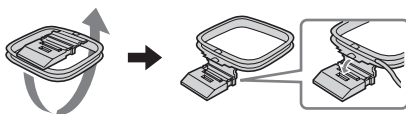


* Gray: Front speakers

Red: Surround speakers and Center speaker

3 Connect the FM and AM antennas.

Set up the AM loop antenna, then connect it.



AM loop antenna

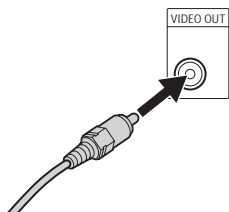


Extend the FM lead antenna horizontally

Note

Keep the antennas away from the speaker cords.

4 Connect the video input jack of your TV to the VIDEO OUT jack with the video cord.

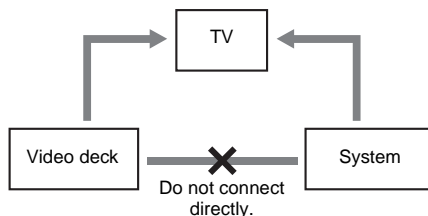


When using a TV

Turn on the TV and select the video input so you can view the pictures from this system.

When connecting a video deck

Connect the TV and the video deck using video and audio cords (not supplied) as shown below.



If you connect a video deck between this system and the TV, you may experience video leakage when watching the video signal from this system. Do not connect a video deck between this system and the TV.

Note

Do not place the TV on this system.

Tip

For even higher quality video images:

- Use an optional component video cord to connect the COMPONENT VIDEO input jacks on your TV to the COMPONENT VIDEO OUT jacks of this system. If your TV is compatible with progressive format file signals, use this connection and set “COMPONENT OUT” to “PROGRESSIVE” in “Adjusting the TV screen” (page 26).
- You can use an optional S-video cord to connect the S VIDEO input jack on your TV to the S VIDEO OUT jack.

5 For models with a voltage selector, set VOLTAGE SELECTOR to the local power line voltage.



* Saudi Arabian model: 120 – 127 V

6 Connect the mains lead to mains.

The demonstration appears in the display. When you press **I/⏻**, the system turns on and the demonstration automatically ends. If the plug does not fit the wall socket, detach the supplied plug adaptor (only for models equipped with an adaptor).

7 (Except for European and Latin American models)

Set the color system to PAL or NTSC depending on the color system of your TV.

The color system is factory set to NTSC for region code 3 models, and PAL for other region code models. Each time you perform the procedure below, the color system changes as follows:

NTSC ↔ PAL

Use buttons on the CD/DVD player for the operation.

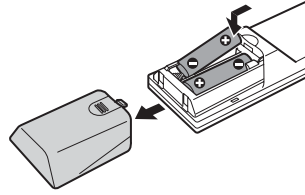
1 Press **I/⏻** to turn off the system.

2 Press **I/⏻** again while holding down **■**.
The system turns on and the color system is changed.

Note

When you play back a VIDEO CD recorded in a different color system from the one you set to the unit, the picture image may be distorted.

Inserting two size AA (R6) batteries into the remote



After inserting the batteries, ensure that you have the COMMAND MODE switch set to SYSTEM to use the system. When setting to TV, you can operate a Sony TV.

Operating a Sony TV

You can use the following buttons on the remote to operate a Sony TV.

To	Press
Turn the TV on or off	TV I/⏻
Switch the TV's input source between the TV and other input sources	TV/VIDEO
Change the TV channels	TV CH +/- or number buttons*
Adjust the volume of the TV speaker(s)	VOL +/-

* For double digit number, press >10, then the number. (For example, press >10, then 2 and 5 for entering 25.)

Note

If you do not use the remote for a long period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

Tip

With normal use, the batteries should last for about six months. When the remote no longer operates the system, replace both batteries with new ones.

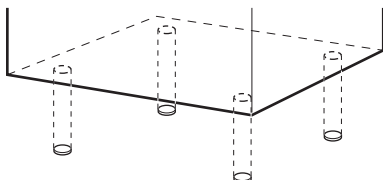
Attaching the speaker pads

Attach the supplied speaker pads to the bottom of the speakers to stabilize the speakers and prevent them from slipping.

Front speaker (Left (4)/Right (4))

Surround speaker (Left (4)/Right (4))

Center speaker (4)



When carrying this system

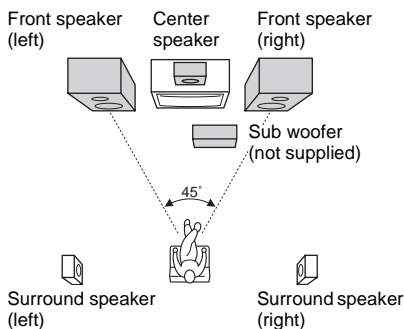
Perform the following procedure to protect the CD/DVD mechanism.

Use buttons on the CD/DVD player for the operation.

- 1 Make sure that the disc is removed from the system.
- 2 Press DVD.
- 3 While holding down ■, move control lever to ↑ until "LOCK" appears.
- 4 Release ↑ first, then release ■.
- 5 Unplug the mains lead.

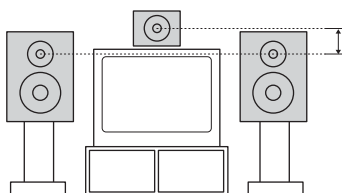
Positioning the speakers

- 1 **Place the front speakers at an angle of 45 degrees from your listening position.**

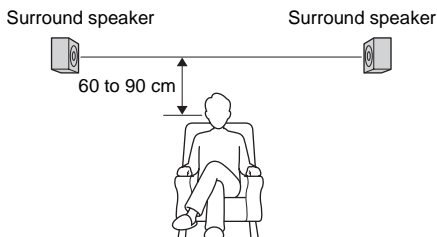


- 2 **Place the center speaker at about the same height as the front speakers.**

Align the center speaker with the front speakers or place it slightly behind the front speakers.



- 3 **Place the surround speakers facing each other at about 60 to 90 cm above your listening position.**



Note

Do not place the surround speakers on top of a TV. This may cause distortion of the colors in the TV screen.

Setting the clock

Use buttons on the remote for the operation.

- 1** Press I/⏻ to turn on the system.
- 2** Press CLOCK/TIMER SET.
- 3** Press ↑ or ↓ repeatedly to set the hour.
- 4** Press →.
- 5** Press ↑ or ↓ repeatedly to set the minute.
- 6** Press ENTER.

The clock starts working.

To adjust the clock

- 1** Press CLOCK/TIMER SET.
- 2** Press ↑ or ↓ repeatedly to select "CLOCK SET?", then press ENTER.
- 3** Do the same procedures as step 3 to 6 above.

Selecting a language

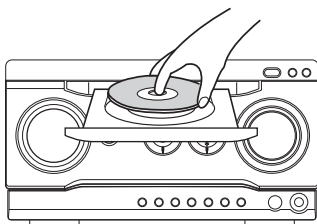
You can change the on-screen display language.

- 1** Turn on your TV and select the video input.
- 2** Press I/⏻ to turn on the system.
- 3** Press FUNCTION repeatedly (or DVD on the CD/DVD player) to switch the function to DVD.
- 4** Press DVD SET UP in stop mode.
- 5** Press ↑ or ↓ repeatedly to select "LANGUAGE SETUP", then press ENTER.
- 6** Press ↑ or ↓ repeatedly to select "OSD", then press ENTER.
- 7** Press ↑ or ↓ repeatedly to select a language from the displayed list, then press ENTER.

Loading a disc

Use buttons on the CD/DVD player for the operation.

- 1 Press **▲**.
- 2 Place a disc with the label side up on the disc tray.



- 3 Press **▲** again to close the disc tray.

Notes

- Do not use a disc with tape, seals or paste on it as this may cause malfunction.
- Do not forcibly press the disc tray closed with your finger, as this may cause malfunction.

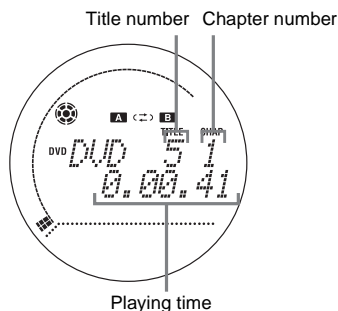
Playing a disc

— Normal Play/Shuffle Play

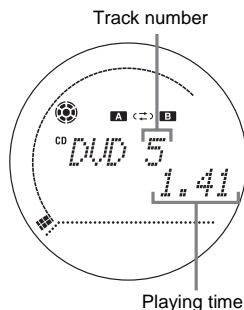


Before playing a DVD or a VIDEO CD, turn on your TV and select the video input. Depending on the DVD or VIDEO CD, some operations may be different or restricted. Refer to the operating instructions supplied with the disc.

Example: When a DVD disc is loaded



Example: When a CD-DA disc is loaded



- 1 Press **FUNCTION** repeatedly (or DVD on the CD/DVD player) to switch the function to DVD.

2 Press **PLAY MODE** in stop mode repeatedly until the mode you want appears in the display.

Select	To play
No display (Normal Play)	The tracks on the disc in original order.
ALBM (Normal Play)	All MP3 audio tracks in the album on the disc you have selected in original order. When playing a non-MP3 disc, Album Play performs the same operation as Normal Play.
SHUF (Shuffle Play)*	All tracks on the disc in random order.
ALBM SHUF (Shuffle Play)*	The MP3 audio tracks in the album on the disc you have selected in random order. When playing a non-MP3 disc, Album Shuffle Play performs the same operation as Shuffle Play.
PGM (Program Play)*	The tracks on the disc in the order you want them to be played (see “Creating your own program” on page 19).

* You cannot perform Shuffle Play and Program Play with DVDs.

3 Press **◀▶**.

Tip

You can also change the play mode by using the on-screen display.

Other operations

To	Do this
Stop play	Press ■ . The playback stops at the point ■ is pressed (Resume Play). Press ■ again to cancel the Resume Play (page 15).
Pause	Press ⏸ . ^{*1} Press ⏸ again to resume play.
Select a track or chapter	Press PREV ◀◀ or NEXT ▶▶ repeatedly during play or pause.
Select an album of MP3	Press ALBUM – or + repeatedly after step 2.
Locate a point quickly in fast forward or fast reverse (Lock Search) ^{*2}	Press ◀◀ or ▶▶ during play. For DVD or VIDEO CD, each time you press the button, searching speed changes as follows: 1 (slow) ↔ 2 (faster than 1) For CD, searching speed does not change (1 (slow) only) To return to Normal Play, press ◀▶ .
Watch frame by frame ^{*1*4} (Slow-motion Play)	Press SLOW ◀◀ or ▶▶ during pause. Each time you press the button, the playback speed changes as follows: Playback direction SLOW2 ▶▶ ^{*3} ↔ SLOW1 ▶▶ ^{*3} Opposite direction (DVD only) SLOW2 ◀◀ ^{*3} ↔ SLOW1 ◀◀ ^{*3} To return to Normal Play, press ◀▶ .
Remove a disc	Press ▲ on the CD/DVD player.

^{*1} There may be some disturbance in the video image.

^{*2} Except for MP3 audio tracks

^{*3} **SLOW2 ▶▶**/**SLOW2 ◀◀** playback speed is slower than **SLOW1 ▶▶**/**SLOW1 ◀◀**. Slow-motion reverse play for DVD only.

^{*4} VIDEO CD and DVD only

Notes

- If DVD playback is paused for approximately one hour, the system automatically turns off.
- Depending on the DVD or VIDEO CD, some operations may be restricted.
- 2 channel sound is heard when using headphones.
- During Slow-motion Play, no sound is output.
- You cannot perform Slow-motion Play with MP3 and CD-DA.
- You cannot change the play mode during play.
- Some time may be needed to start playback of discs recorded in complex configurations such as many layers.
- The system can play MP3 (MPEG1 Audio Layer3) audio. The system cannot play audio tracks in MP3PRO format.
- This system can play Multi Session CDs when an MP3 audio track is located in the first session. Any subsequent MP3 audio tracks, recorded in the later sessions, can also be played back.
- Maximum number of albums on a disc: 99 (The maximum number of MP3 audio tracks that can be contained on an album is 250.)
- An album that does not include an MP3 audio track is skipped.
- If you put the extension “.MP3” to data not in MP3 format, the system cannot recognize the data properly and will generate a loud noise which could damage your speaker system.
- When the system cannot play MP3, remove the disc and select “CUSTOM SETUP” from the setup items. Then select “DATA CD PRIORITY” and set to “MP3” (page 25) and insert the disc again.
- The system can play to a depth of 8 directories.

Tip

When disc access takes a long time, set “DVD POWER ON” by DVD power manage function (page 37).

Resuming playback from the point you stopped the disc

— Resume Play

This system memorizes the point where you stopped the disc so you can resume from that point. Resume Play is not canceled when you turn off the system.

- 1 While playing a disc, press ■ to stop playback.
“RESUME” appears in the display. If “RESUME” does not appear, Resume Play is not available.

- 2 Press ◀▶.

The player starts playback from the point you stopped the disc in step 1.

Notes

- You cannot perform Resume Play during Shuffle Play or Program Play.
- Depending on where you stopped the disc, the system may resume playback from a different point.
- Resume play is canceled when:
 - you press ■.
 - you disconnect the mains lead.
 - you open the disc tray.
 - you change the play mode.
 - you change the settings using the DVD DISPLAY or DVD SET UP button.

Playing a track by entering the track number (on the remote only)

Press the number button(s) to enter the track number of the track you want to play. (To enter the MP3 audio track number, press ALBUM – or + repeatedly to select the desired album before entering the number.)

To enter a track number over 10

- 1 Enter the corresponding digits.

To enter 0, press 10/0.

- 2 Press ENTER.

Example:

To play track number 30, press 3 and 10/0, then press ENTER.

To play MP3 track number 100, press 1, 10/0 and 10/0, then press ENTER.

Playing DVDs using the menu

DVD

Some DVDs have menus to help you enjoy the DVDs. You can play DVDs using these menus on TV screen.

- Using the DVD top menu

A DVD is divided into long sections of a picture or a music feature called “titles”. When you play a DVD which contains several titles, you can select the title you want using the menu.

- Using the DVD menu

Some DVDs allow you to select the disc contents using a menu. When you play these DVDs, you can select items such as the language for the subtitles and the language for the sound using the DVD menu.

1 Press DVD TOP MENU or DVD MENU.

The menu appears on the TV screen. The contents of the menu vary from disc to disc.

2 Press $\uparrow/\downarrow/\leftarrow/\rightarrow$ or the number buttons to select the title or item you want to play.

3 Press ENTER.

Note

If the DVD top menu or a DVD menu is displayed during DVD playback for approximately one hour, the system automatically turns off.

Playing VIDEO CDs with PBC functions (Ver. 2.0)

— PBC Play

VIDEO CD

You can use PBC* menus on your TV screen to enjoy the disc’s interactive software. The menu format and structure may differ depending on each disc.

* PBC: Playback Control

1 Press $\blacktriangleleft/\blacktriangleright$ to start playing a VIDEO CD with PBC functions (Ver. 2.0).

The PBC menu appears on the TV screen.

2 Press \uparrow/\downarrow or the number buttons to select the item number you want.

3 Press ENTER.

4 Continue playback according to the instructions on the menus to enjoy interactive playback.

Refer to the operating instructions supplied with the disc, as the operating procedure may differ according to the VIDEO CD.

To go back to a previous menu

Press \curvearrowright RETURN.

Note

Depending on the VIDEO CD, “Press ENTER” in step 3 may appear as “Press SELECT” in the operating instructions supplied with the disc. In this case, press SELECT.

Tip

You can cancel playback with PBC functions.

1 In stop mode, press PREV $\blacktriangleleft\blacktriangleleft$ /NEXT $\blacktriangleright\blacktriangleright$ or the number buttons to select a track.

2 Press $\blacktriangleleft\blacktriangleright$.

“Play without PBC” appears on the TV screen and playback starts from the selected track. Still images, such as the menu screens, will not be shown.

To return to PBC playback, press \blacksquare twice, then press $\blacktriangleleft\blacktriangleright$.

Playing JPEG Image Files

JPEG

You can play JPEG image files on CD-ROMs, CD-Rs or CD-RWs. However, the discs must be recorded according to ISO9660 level 1, level 2 or Joliet format for the system to recognize the files. You can also play discs recorded in Multi Session. See the instructions of the CD-R/RW device or recording software (not supplied) for details on the recording format.

1 Load a data disc recorded in JPEG into the system.

2 Press ◀▶.

The system starts to play the first JPEG image file in the first album on the disc.

Notes

- The system can play the extension “.JPG” or “.JPEG”.
- Progressive JPEG format files cannot be played on this system.
- Some CD-Rs or CD-RWs cannot be played on this system depending on file format.
- Maximum album number: 99 (including root folder)
- The maximum file number that can be contained on a single album is 250.
- Playback is possible up to 8 levels.

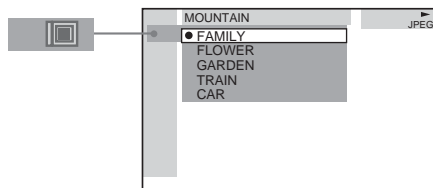
Selecting an album and file

1 Press DVD DISPLAY.

The Control Menu and disc name of JPEG data disc appears.

2 Press ↑ or ↓ to select “ALBUM”, then press ENTER.

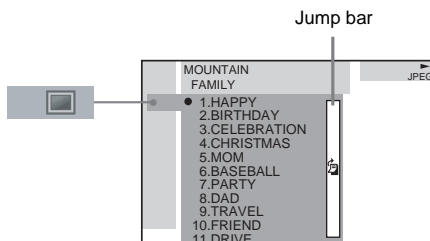
The list of albums contained in the disc appears.



3 Select an album you want to play using ↑ or ↓ and press ENTER.

4 Select “FILE” using ↑ or ↓ and press ENTER.

The list of files contained in the current album appears.



When the list of all files or albums cannot be displayed on the window, the jump bar appears. Press → to select the jump bar icon, and then scroll the jump bar to display the rest of the list using ↑ or ↓.

5 Select a file using ↑ or ↓ and press ENTER.

The selected file starts playing.

To return the previous display

Press ◀ or ⏮ RETURN.

To turn off the display

Press DVD DISPLAY.

Note

Only the letters in the alphabet and numbers can be used for album or file names. Anything else is displayed as “ ”.

Tip

When a JPEG data disc is inserted, you can select an album using ALBUM – or +.

Enjoying the Slide show

- 1 Press **▶▶** while displaying a JPEG image.

Slide show starts from the current image.

- 2 Press **◀▶** when you want to return to Normal Play.

To change the interval time of Slide show

Each time you press **▶▶** during Slide show, the interval time changes cyclically as follows:

FF1 **▶▶** → FF2 **▶▶** → FF3 **▶▶**

The FF3 **▶▶** interval time is faster than FF2 **▶▶**.

To rotate the current image

Rotate the current image using **◀ or **▶**.**

Each time you press **▶**, the image turns clockwise by 90°.

Each time you press **◀**, the image turns counterclockwise by 90°.

Notes

- Slide show can play in only one direction.
- You cannot rotate the image during Slide show. Press **◀▶** to return to Normal Play before this operation.

Playing repeatedly

— Repeat Play



You can play repeatedly all the titles/tracks/files or a single title/chapter/track on a disc.

Using the front panel display

Press REPEAT during play until “REP” or “REP1” appears.

REP: For all the tracks on the disc, or all the tracks in the album* up to five times.

REP1: For a single title/chapter/track only.

* When “ALBM” is selected for MP3 or JPEG.

To cancel Repeat Play

Press REPEAT repeatedly until both “REP” and “REP1” disappear.

Notes

- Depending on the DVD, you cannot perform Repeat Play.
- You cannot perform Repeat Play during PBC playback of VIDEO CDs (page 16).
- You cannot select “REP1” during Program Play.
- When you select “REP1”, that title/chapter/track is repeated endlessly until “REP1” is canceled.

Using the on-screen display

- 1 Press **DVD DISPLAY** during play.

The Control Menu appears.

- 2 Press **↑** or **↓** repeatedly to select “REPEAT”, then press **ENTER**.

If you do not select “OFF”, the “REPEAT” indicator lights up in green.

- 3 Press **↑** or **↓** repeatedly to select the Repeat Play setting.

The default settings are underlined.

■ When playing a DVD

- OFF: does not play repeatedly.
- ALL: repeats all the titles.
- TITLE: repeats the current title on a disc.
- CHAPTER: repeats the current chapter.

■ When playing a VIDEO CD/CD/MP3 when Program Play is set to OFF

- **OFF**: does not play repeatedly.
- **ALL**: repeats all the tracks on a disc, or all the tracks in the current album*.
- **TRACK**: repeats the current track.

■ When playing a JPEG

- **OFF**: does not play repeatedly.
- **ALL**: repeats all the files on the disc, or repeats the current album*.

■ When Program Play is set to ON

- **OFF**: does not play repeatedly.
- **ALL**: repeats Program Play.

4 Press ENTER.

Repeat Play starts.

* When “ALBM” is selected for MP3 or JPEG.

To cancel Repeat Play

Select “OFF” in step 3, or press CLEAR.

To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu disappears.

Notes

- Depending on the DVD, you cannot perform Repeat Play.
- You cannot perform Repeat Play during PBC playback of VIDEO CDs (page 16).
- If you select “ALL”, the program repeats up to five times.

Tips

- You can set Repeat Play when the playback is stopped. Press REPEAT repeatedly to select the setting, then press ◀▶ to start Repeat Play.
- You can quickly display the “REPEAT” status. Press REPEAT.

Creating your own program

— Program Play



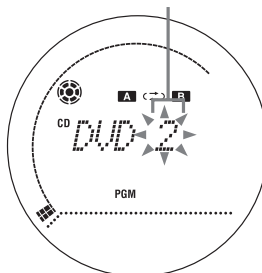
You can make a program of up to 25 steps.
You can synchro record the programmed tracks onto a cassette tape (page 41).

Using the front panel display

- 1 Press FUNCTION repeatedly (or DVD on the CD/DVD player) to switch the function to DVD.**
- 2 Press PLAY MODE in stop mode repeatedly until “PGM” appears.**
- 3 Press ◀▶ or ▶▶ repeatedly until the desired title or track number appears.**

When programming an MP3, press ALBUM – or + to select album, then press ◀▶ or ▶▶ repeatedly until the desired track number appears.

Selected track number



- 4 Press ENTER.**
The track is programmed.
The program step number appears, followed by the total playing time.
- 5 To program additional tracks, repeat steps 3 and 4.**
- 6 Press ◀▶.**
Program Play starts.

continued

Other operations

To	Do this
Cancel Program Play	Press PLAY MODE in stop mode repeatedly until both “PGM” and “SHUF” disappear.
Check the program	Press ◀▶ or ▶▶ repeatedly during play.
Clear a track from the end	Press CLEAR in stop mode.

Note

When you switch the play mode to “PGM” while “REP1” is selected, “REP1” is automatically canceled.

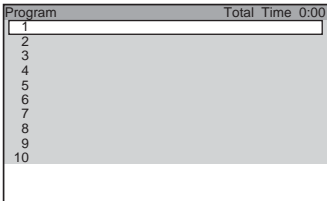
Tips

- The program you made remains after Program Play finishes. To play the same program again, press ◀▶. However, the program is cleared when you open the disc tray.
- “- - - -” appears when you select an MP3 audio track.

Using the on-screen display

1 Press PLAY MODE in stop mode repeatedly until “PGM” appears in the display.

The Program Display appears on the screen.



2 Press ➡ to select the track you want to program.

When the list of all tracks cannot be displayed on the window, the jump bar appears. Press ➡ to select the jump bar icon, and then scroll the jump bar to display the rest of the list using ⬆ or ⬇. Press ◀ or ⏮ RETURN to return to the track list.

■ When programming a VIDEO CD or CD

For example, select track “7”.

Press ⬆/⬇ or the number buttons to select “7”, then press ENTER.

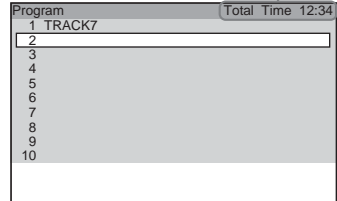
■ When programming MP3

For example, select track “7” of album “2”.

Press ⬆/⬇ to select “2”, then press ➡.

Next, press ⬆/⬇ or the number buttons to select “7”, then press ENTER.

Total time of the programmed tracks (except for MP3)*



* “- - - -” appears when an MP3 audio track is selected.

3 To program other tracks, repeat step 2.

4 Press ◀▶.

Program Play starts.

When the program ends, you can restart the same program again by pressing ◀▶.

Other operations

To	Do this
Return to Normal Play	Press CLEAR during play.
Turn off the Program Display	Press PLAY MODE when the Program Play is stopped.
Clear a track from the end of program	Press CLEAR in step 3.

Note

Program Play function is not available for DVD and JPEG.

Tip

The program you made remains in the system’s memory even after Program Play finishes. Press ◀▶ to play the same program again.

Searching for a title/ chapter/track/index/ album/file



You can search a title (DVD), chapter (DVD), track (CD, VIDEO CD, MP3), index (VIDEO CD), album (MP3, JPEG) and file (JPEG). As titles, tracks and albums are assigned unique numbers on the disc, you can select the desired one from the Control Menu. Also chapters and indexes are assigned unique numbers on the disc, so you can select the desired one by entering its number. Or, you can search for a particular point using the time code (Time Search).

Searching for a title/track/ album/file

1 Press DVD DISPLAY.

The Control Menu appears.

2 Press \uparrow or \downarrow repeatedly to select the search method.

■ When playing a DVD
“TITLE”

■ When playing a VIDEO CD
“TRACK”

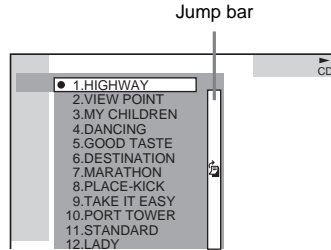
■ When playing a CD
“TRACK”

■ When playing an MP3
“ALBUM” or “TRACK”

■ When playing a JPEG
“ALBUM” or “FILE”

3 Press ENTER.

The list of contents in the disc appears.



When the list of all tracks or albums cannot be displayed on the window, the jump bar appears. Press \rightarrow to select the jump bar icon, and then scroll the jump bar to display the rest of the list using \uparrow/\downarrow . Press \leftarrow or \hookrightarrow RETURN to return to the track or the album list.

4 Press \uparrow or \downarrow to select the desired track, then press ENTER.

The system starts playback from the selected track.

Searching for a chapter/index

1 Press DVD DISPLAY.

The Control Menu appears.

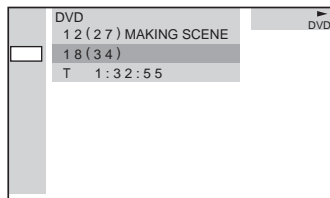
2 Press \uparrow or \downarrow to select the search method.

■ When playing a DVD
“CHAPTER”

■ When playing a VIDEO CD
“INDEX”

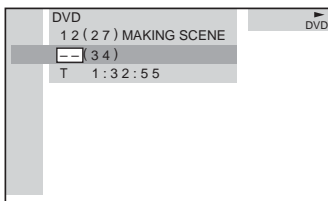
“** (**)” is selected (** refers to a number).

The number in parentheses indicates the total number of chapters or indexes.



3 Press ENTER.

“** (**)” changes to “-- (**)”.



4 Press ↑ or ↓ repeatedly, or press the number buttons to select the chapter or index number you want to search.

If you make a mistake, press CLEAR to cancel the number, then select another number.

5 Press ENTER.

The playback starts from the selected number.

To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu disappears.

To cancel searching

Press ⏮ RETURN.

To search for a particular point using the time code

— Time Search

1 In step 2, select “TIME”.

“T **:**:**” (playing time of the current title or track) is selected.

2 Press ENTER.

“T --:--:--” appears above “T **:**:**”.

3 Input the time code using the number buttons, then press ENTER.

For example, to find the scene at 2 hours, 10 minutes, and 20 seconds after the beginning, enter “2:10:20”.

Notes

- The title, chapter or track number displayed on the TV screen is the recorded data on the disc.
- You cannot search a scene of a VIDEO CD.
- If you play a DVD, input the playing time of the current title using the time code. If you play a CD, VIDEO CD or MP3, input the playing time of the current track using the time code.

Tip

You can change the display to show playing time or remaining time. For details, see “Viewing information about the disc in the on-screen display” on page 52.

DVD – Various functions

Changing the sound/
subtitle/language

Changing the sound (DVD only)

If a DVD is recorded with multilingual tracks, you can select the language you want while playing the DVD. If the DVD is recorded in multiple audio formats (PCM, Dolby Digital, MPEG audio or DTS), you can select the audio format you want while playing the DVD.

1 Press DVD DISPLAY during play.

The Control Menu appears.

2 Press ↑ or ↓ repeatedly to select “AUDIO”, then press ENTER.

The options for “AUDIO” appear.

3 Press ↑ or ↓ repeatedly to select the audio signal you want.

Depending on the DVD, the choice of the language and audio format varies.

When 4-digit is displayed, they represent the language code (see “Language code list” on page 67). When the same language is displayed twice or more times, the DVD is recorded in multiple audio formats.

4 Press ENTER.

To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu disappears.

Notes

- For discs not recorded in multiple audio format, you cannot change the sound.
- During DVD playback, the sound may change automatically.

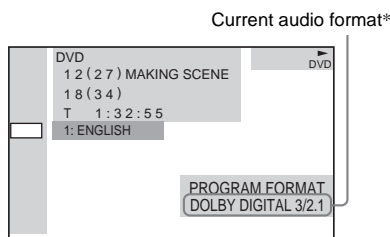
Tip

You can select the audio setting by pressing AUDIO. Each time you press the button, the setting changes.

Displaying the audio information of the disc (DVD only)

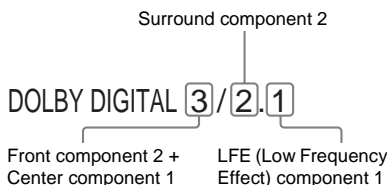
When you select “AUDIO”, the channels being played are displayed on the screen.

For example, in Dolby Digital format, multiple signals ranging from monaural to 5.1 channel signals can be recorded on a DVD. Depending on the DVD, the number of recorded channels may differ.



* “PCM”, “DTS”, or “DOLBY DIGITAL” is displayed. For “DOLBY DIGITAL”, the channels in the playing track are displayed numerically as follows:

For Dolby Digital 5.1 ch:



The display examples are as follows:

- PCM (stereo)

PROGRAM FORMAT
PCM 48kHz 24bit

- Dolby Surround

PROGRAM FORMAT
DOLBY DIGITAL 2/0
DOLBY SURROUND

- Dolby Digital 5.1ch

PROGRAM FORMAT
DOLBY DIGITAL 3/2.1

- DTS

PROGRAM FORMAT
DTS 3/2.1

Displaying the subtitles (DVD only)

With DVDs on which multilingual subtitles are recorded, you can change the subtitle language while playing a DVD, or turn the subtitles on or off whenever you want.

For example, you can select the language you want to master and turn the subtitles on for better understanding.

- 1 Press DVD DISPLAY during play.**
The Control Menu appears.
- 2 Press ↑ or ↓ repeatedly to select “SUBTITLE”, then press ENTER.**
The options for “SUBTITLE” appear.
- 3 Press ↑ or ↓ repeatedly to select the language you want, then press ENTER.**
The subtitles are displayed in the selected language.
When 4-digit is displayed, they represent the language code (see “Language code list” on page 67).

To cancel the SUBTITLE setting
Select “OFF” in step 3.

To turn off the Control Menu
Press DVD DISPLAY repeatedly until the Control Menu disappears.

Note
Depending on the DVD, you may not be able to change the subtitles even if multilingual subtitles are recorded on the DVD.

Tip
You can select the subtitle language by pressing SUBTITLE. Each time you press the button, the language changes.

Changing the screen display language, DVD menu language and audio track auto selection mode

— LANGUAGE SETUP/CUSTOM SETUP

- 1 Press DVD SET UP in stop mode.**
The Setup Display appears.
- 2 Press ↑ or ↓ repeatedly to select “LANGUAGE SETUP” or “CUSTOM SETUP”, then press ENTER.**

Select	Setup item
LANGUAGE SETUP	OSD
	DVD MENU
	AUDIO
	SUBTITLE
CUSTOM SETUP	TRACK SELECTION
	AUDIO DRC
	DATA CD PRIORITY
	JPEG DATE

- 3 Press ↑ or ↓ repeatedly to select a setup item, then press ENTER.**
- 4 Press ↑ or ↓ repeatedly to select a setting, then press ENTER.**

Note
When the selected language is not recorded on the DVD, one of the recorded languages is automatically selected (except for “OSD”).

Tips

- You can reset all the DVD settings except for Parental Control by performing the operations described under “To return the DVD setup to the default settings, perform reset as follows:” (page 61).
- If you select “OTHERS→” in “DVD MENU”, “AUDIO” or “SUBTITLE”, select and enter the language code from the language code list using the number buttons (page 67). The selected language code (4-digit) is displayed the next time you select “OTHERS→”.

■ OSD (on-screen display)

Switches the display language on the screen. Select the language from the displayed list.

■ DVD MENU (DVD only)

Select the language for the DVD menu.

■ AUDIO (DVD only)

Switches the language of the sound track. Select the language from the displayed list.

■ SUBTITLE (DVD only)

Switches the language of the subtitle. Select the language from the displayed list.

■ TRACK SELECTION (DVD only)

Gives the priority to the sound track which contains the highest number of channels when you play a DVD on which multiple audio formats (PCM, MPEG audio, DTS or Dolby Digital format) are recorded.

<u>OFF</u>	No priority given.
AUTO	Priority given.

■ AUDIO DRC (Dynamic range compression)

Narrows the DYNAMIC range of the sound track. Useful for watching movies at low volume late at night.

OFF	No compression of DYNAMIC range.
<u>STANDARD</u>	Reproduces the sound track with the kind of DYNAMIC range that the recording engineer intended.
MAX	Narrows the DYNAMIC range fully.

Note

DYNAMIC range compression works with Dolby Digital source only.

■ DATA CD PRIORITY (MP3, JPEG only)

Set priority data you want to play, when you play the data disc (CD-ROM/CD-R/CD-RW) contained MP3 audio tracks and JPEG image files.

<u>MP3</u>	If an MP3 file exists on the disc, the system recognises the disc as an “MP3 Disc”. If only JPEG files exist on the disc, the system recognises the disc as a “JPEG Disc”.
JPEG	If a JPEG file exists on the disc, the system recognises the disc as a “JPEG Disc”. If only MP3 files exist on the disc, the system recognises the disc as an “MP3 Disc”.

■ JPEG DATE

Change the date information order of a JPEG image in the Control Menu as:

<u>MM/DD/YYYY</u>
YYYY/MM/DD
DD/MM/YYYY
YYYY/DD/MM

YYYY: Year

MM: Month

DD: Day

Notes

- When you set to “AUTO”, the language setting may change. The “TRACK SELECTION” setting has higher priority than the “AUDIO” setting in “LANGUAGE SETUP”.
- If PCM, MPEG audio, DTS and Dolby Digital sound tracks have the same number of channels, the system selects PCM, DTS, Dolby Digital and MPEG audio sound tracks in this order.
- Depending on the DVD, the audio channel with priority may be predetermined. In this case, you cannot give priority to the DTS, Dolby Digital or MPEG audio format by selecting “AUTO”.
- When you play Multi Session discs with different formats mixed in each session, the format of the first session is recognized as the disc type. Tracks in the second and subsequent sessions are played if they are the same format as the first session, but different format tracks are not played. However, in the case of CD-DA, even if CD-DA tracks are present in the second and subsequent sessions, only the CD-DA tracks in the first session are played.

Adjusting the angle/image



Changing the angles (DVD only)

When playing a DVD on which various angles (multi-angles) for a scene are recorded, the “ANGLE” indicator appears in the display. This means that you can change the viewing angle. For example, while playing a scene of a train in motion, you can display the view from either the front of the train, the left window of the train or from the right window without having the train’s movement interrupted.

- 1 Press DVD DISPLAY during play.**
The Control Menu appears.
- 2 Press ↑ or ↓ repeatedly to select “ANGLE”.**
The angle number appears. The number in parentheses indicates the total number of angles. The “ANGLE” indicator lights up in green when angles are recorded on the disc.
- 3 Press ENTER.**
The angle number changes to “–”.
- 4 Select the angle you want using the number buttons or ↑/↓, then press ENTER.**
The angle is changed to the selected angle.

To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu disappears.

Note

Depending on the DVD, you may not be able to change the angles even if multi-angles are recorded on the DVD.

Tip

You can select the angle by pressing ANGLE. Each time you press the button, the angle changes.

Adjusting the TV screen

— SCREEN SETUP/CUSTOM SETUP

- 1 Press DVD SET UP in stop mode.**
The Setup Display appears.
- 2 Press ↑ or ↓ repeatedly to select “SCREEN SETUP” or “CUSTOM SETUP”, then press ENTER.**

Select	Setup item
SCREEN SETUP	TV TYPE
	SCREEN SAVER
	BACKGROUND
	COMPONENT OUT
CUSTOM SETUP	VCD COLOR SYSTEM

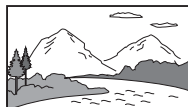
- 3 Press ↑ or ↓ repeatedly to select an item, then press ENTER.**
- 4 Press ↑ or ↓ repeatedly to select a setting, then press ENTER.**

■ TV TYPE (DVD only)

Select the aspect ratio of the connected TV.

16:9	Select this when you connect a wide-screen TV or a TV with a wide mode function.
4:3 LETTER BOX	Select this when you connect a 4:3 screen TV. This setting displays a wide picture with bands displayed on the upper and lower portions of the screen.
4:3 PAN SCAN	Select this when you connect a 4:3 screen TV. This setting displays the wide picture on the entire screen and cuts off the portions that do not fit.

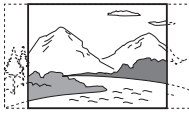
- 16:9



- 4:3 LETTER BOX



• 4:3 PAN SCAN



Note

Depending on the DVD, “4:3 LETTER BOX” may be selected automatically instead of “4:3 PAN SCAN” or vice versa.

■ SCREEN SAVER

Turn on and off the screen saver. If you turn on the screen saver, the screen saver image appears when you leave the player in pause or stop mode for 15 minutes or when you play a CD or disc with MP3 audio tracks for more than 15 minutes. The screen saver will help prevent your display device from becoming damaged (ghosting). Press any DVD-related button to turn off the screen saver.

<u>ON</u>	Turns on the screen saver.
<u>OFF</u>	Turns off the screen saver.

■ BACKGROUND

Select the background color or picture on the TV screen when the playback is stopped or while playing a disc.

<u>JACKET PICTURE</u>	The jacket picture (still picture) appears in the background, but only when the jacket picture is already recorded on the disc (CD-EXTRA, etc.). If the disc does not contain a jacket picture, the “GRAPHICS” picture appears.
<u>GRAPHICS</u>	The preset picture stored in the system appears in the background.
<u>BLUE</u>	The background color is blue.
<u>BLACK</u>	The background color is black.

■ COMPONENT OUT

Change the type of signal output from the COMPONENT VIDEO OUT jacks on the CD/DVD player.

<u>INTERLACE</u>	Select this when you are connected to a standard (interlace format) TV.
<u>PROGRESSIVE</u>	Select this when you have a TV that can accept progressive signals.

To force the system to switch to interlace when PROGRESSIVE is selected (on the CD/DVD player only)

Make sure the function is set to DVD, then hold down **■** and press DVD MENU.

Notes

- “PROGRESSIVE” does not work for PAL signals. Even if you set “COMPONENT OUT” to “PROGRESSIVE”, the output signal is automatically switched to interlace format for PAL signals.
- When “COMPONENT OUT” is set to “PROGRESSIVE”, no video signal is output from the VIDEO OUT or S VIDEO OUT jacks.

■ VCD COLOR SYSTEM (except for European and Latin American models)

Select the color system when you play a VIDEO CD.

<u>AUTO</u>	Outputs the video signal in the system of the disc, either PAL or NTSC. If your TV uses a DUAL system, select AUTO.
<u>PAL</u>	Changes the video signal of an NTSC disc and outputs it in the PAL system.
<u>NTSC</u>	Changes the video signal of a PAL disc and outputs it in the NTSC system.

Notes

- You cannot change the color system of the disc itself.
- Except for European and Latin American models, you can change the color system of this unit according to the connected TV (page 10).

Restricting disc playback

— CUSTOM PARENTAL CONTROL/ PARENTAL CONTROL



Preventing playback of specific discs

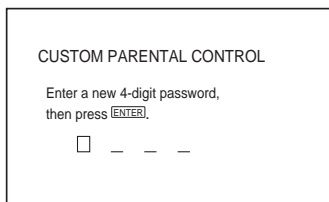
— CUSTOM PARENTAL CONTROL

You can set the playback restrictions so that the system will not play inappropriate discs. You can set the same Custom Parental Control password for up to 25 discs. When you set the twenty-sixth disc, the playback restriction for the first disc is canceled.

- 1 Insert the disc you want to lock.**
If the disc is playing, press ■ to stop play.
- 2 Press DVD DISPLAY in stop mode.**
The Control Menu appears.
- 3 Press ↑ or ↓ repeatedly to select “CUSTOM PARENTAL CONTROL”, then press ENTER.**
The “CUSTOM PARENTAL CONTROL” is selected.
- 4 Press ↑ or ↓ repeatedly to select “ON→”, then press ENTER.**

■ If you have not entered a password

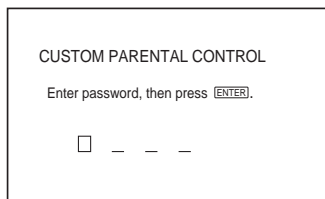
The display for registering a new password appears.



Enter a 4-digit password using the number buttons on the remote, then press ENTER. The display for confirming the password appears.

■ When you have already registered a password

The display for entering the password appears.



5 Enter or re-enter your 4-digit password using the number buttons, then press ENTER.

“Custom parental control is set.” appears and the screen returns to the Control Menu.

If you make a mistake entering your password

Press ◀ before you press ENTER and input the correct number.

If you make a mistake

Press ⏮ RETURN, then start from step 3 again.

To turn off the Control Menu

Press ⏮ RETURN, then press DVD DISPLAY repeatedly until the Control Menu disappears.

To turn off the Custom Parental Control function

1 In step 4, select “OFF→”, then press ENTER.

2 Enter your 4-digit password using the number buttons, then press ENTER.

To change the password

1 In step 4, select “PASSWORD→”, then press ENTER.

The display for entering the password appears.

2 Enter your 4-digit password using the number buttons, then press ENTER.

3 Enter a new 4-digit password using the number buttons, then press ENTER.

4 To confirm your password, re-enter it using the number buttons, then press ENTER.

Playing the disc for which Custom Parental Control is set

1 Insert the disc for which Custom Parental Control is set.

The “CUSTOM PARENTAL CONTROL” display appears.

2 Enter your 4-digit password using the number buttons, then press ENTER.

The system is ready for playback.

Tip

If you forgot your password, enter the 6-digit number “199703” using the number buttons when the “CUSTOM PARENTAL CONTROL” display asks you for your password, then press ENTER. The display will ask you to enter a new 4-digit password.

Limiting playback by children (DVD only)

— PARENTAL CONTROL

You can limit the playback of some DVDs according to a predetermined level such as the age of the users. The same password is used for both Custom Parental Control and Parental Control.

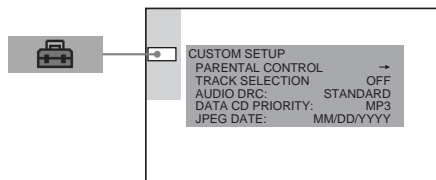
When a limited scene is played back, that scene is cut or replaced with a preset other scene.

1 Press DVD SET UP in stop mode.

The Setup Display appears.

2 Press ↑ or ↓ repeatedly to select “CUSTOM SETUP”, then press ENTER.

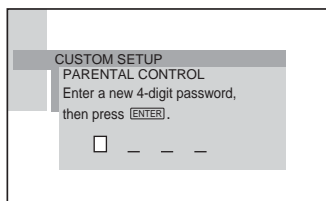
The “CUSTOM SETUP” display appears.



3 Press ↑ or ↓ repeatedly to select “PARENTAL CONTROL→”, then press ENTER.

■ **If you have not entered a password**

The display for registering a new password appears.

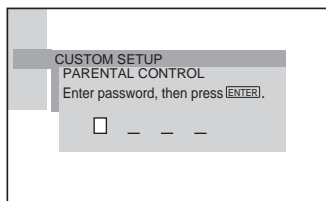


Enter a 4-digit password using the number buttons, then press ENTER.

The display for confirming the password appears.

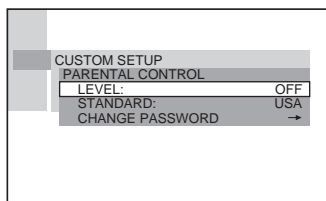
■ **When you have already registered a password**

The display for entering the password appears.

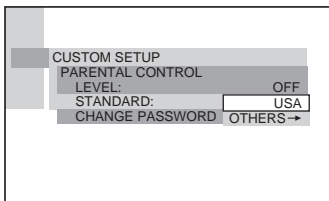


4 Enter or re-enter your 4-digit password using the number buttons, then press ENTER.

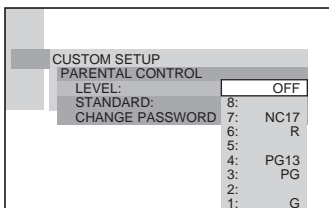
The display for setting the playback limitation level and changing the password appears.



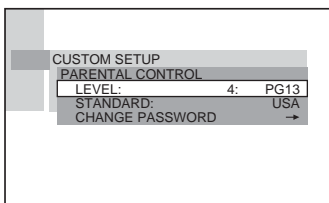
- 5 Press \uparrow or \downarrow repeatedly to select “STANDARD”, then press ENTER.**
The options for “STANDARD” appear.



- 6 Press \uparrow or \downarrow repeatedly to select a geographic area as the playback limitation level, then press ENTER.**
The area is selected.
When you select “OTHERS \rightarrow ”, select and enter the standard code in the table on page 31 using the number buttons.
- 7 Press \uparrow or \downarrow repeatedly to select “LEVEL”, then press ENTER.**
The options for “LEVEL” appear.



- 8 Press \uparrow or \downarrow repeatedly to select the level you want, then press ENTER.**
The Parental Control setting is completed.



The lower the value, the more strict the limitation.

If you make a mistake

Press \leftarrow or \rightarrow RETURN to go back to the previous screen.

To turn off the Control Menu
Press DVD SET UP repeatedly until the Control Menu disappears.

To turn off the Parental Control function and play the DVD after entering your password

Set “LEVEL” to “OFF” in step 8.

To change the password

- 1 In step 5, select “CHANGE PASSWORD \rightarrow ”, then press ENTER.
The display for entering the password appears.

- 2 Follow step 3 to enter a new password.

Playing the disc for which Parental Control is set

- 1 Insert the disc and press $\blacktriangleleft\blacktriangleright$.
The “PARENTAL CONTROL” display appears.

- 2 Enter your 4-digit password using the number buttons, then press ENTER.
Playback starts.

Notes

- When you play DVDs which do not have the Parental Control function, playback cannot be limited on this system.
- Depending on the DVD, you may be asked to change the parental control level while playing the disc. In this case, enter your password, then change the level. If the Resume Play mode is canceled, the level returns to the original level.

Tip

If you forgot your password, remove the disc and repeat steps 1 to 3 of “Limiting playback by children (DVD only)” (page 29). When you are asked to enter your password, enter “199703” using the number buttons, then press ENTER. The display will ask you to enter a new 4-digit password. After you enter a new 4-digit password, replace the disc in the system and press $\blacktriangleleft\blacktriangleright$. When the “PARENTAL CONTROL” display appears, enter your new password.

Area code

Standard	Code number
Argentina	2044
Australia	2047
Austria	2046
Belgium	2057
Brazil	2070
Canada	2079
Chile	2090
China	2092
Denmark	2115
Finland	2165
France	2174
Germany	2109
Hong Kong	2219
India	2248
Indonesia	2238
Italy	2254
Japan	2276
Korea	2304
Malaysia	2363
Mexico	2362
Netherlands	2376
New Zealand	2390
Norway	2379
Pakistan	2427
Philippines	2424
Portugal	2436
Russia	2489
Singapore	2501
Spain	2149
Sweden	2499
Switzerland	2086
Taiwan	2543
Thailand	2528
United Kingdom	2184

Speaker settings

— **SPEAKER SETUP**

To obtain the best possible surround sound, set the speakers you have connected and their distance from your listening position. Then use the test tone to adjust the volume and the balance of the speakers to the same level.

Setting the speakers

- 1 Press DVD SET UP in stop mode.**
The Setup Display appears.
- 2 Press \uparrow or \downarrow repeatedly to select “SPEAKER SETUP”, then press ENTER.**
- 3 Press \uparrow or \downarrow repeatedly to select “SIZE” or “DISTANCE”, then press ENTER.**
- 4 Press \uparrow or \downarrow repeatedly to select the setup item, then press ENTER.**
- 5 Press \uparrow or \downarrow repeatedly to select or set a setting, then press ENTER.**

■ **SIZE**

When you do not connect center or surround speakers, or you move the surround speakers, set the parameters for CENTER, SURROUND and SUBWOOFER. Since the front speaker setting is fixed, you cannot change it.

FRONT	<u>YES</u>
CENTER	<u>YES</u> : Normally select this position. NONE: Select this when a center speaker is not used.
SURROUND	<u>YES</u> : Normally select this. <u>BEHIND (LOW)</u> , BEHIND (HIGH), SIDE (LOW), SIDE (HIGH)*: Specify the position and height to implement the Digital Cinema Surround modes. NONE: Select this when surround speakers are not used.
SUBWOOFER	<u>NONE</u> : Normally select this. YES: Select this when an optional sub woofer is used.

* These settings are not available on European and Latin American models.

continued

Note

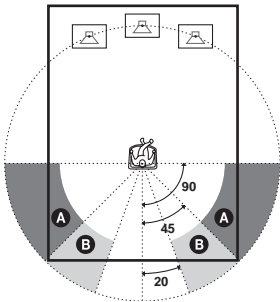
When connecting a sub woofer, make sure to set the SUBWOOFER setting to “YES”. If set to “NONE”, no sound is output from the sub woofer.

Specifying the surround speaker position and height (except for European and Latin American models)

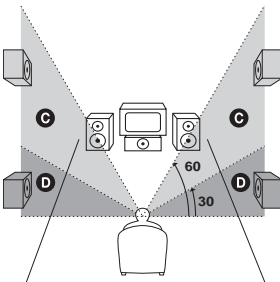
If you select anything other than “NONE” in “SURROUND”, specify the position and height of the surround speakers.

BEHIND (LOW)	Select this if the surround speakers are located in section B and D .
BEHIND (HIGH)	Select this if the surround speakers are located in section B and C .
SIDE (LOW)	Select this if the surround speakers are located in section A and D .
SIDE (HIGH)	Select this if the surround speakers are located in section A and C .

Position diagram

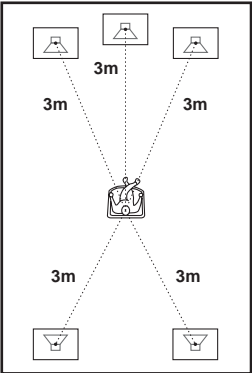


Height diagram



■ DISTANCE

The default distance setting for the speakers in relation to the listening position is shown below.



Be sure to change the value in the Setup Display when you move the speakers.

FRONT <u>3.0 m</u>	Front speaker distance from the listening position can be set in 0.2 meter increments from 1.0 to 7.0 meters.
CENTER <u>3.0 m</u>	Center speaker distance can be moved up to 1.6 meters closer to the listening position, from the front speakers in 0.2 meter increments.
SURROUND <u>3.0 m</u>	Surround speaker distance can be moved up to 4.6 meters closer to the listening position, from the front speakers, in 0.2 meter increments.

Notes

- If each of the front and surround speakers are not placed at an equal distance from your listening position, set the distance of the closest speaker.
- Do not place the surround speakers farther away from your listening position than the front speakers.

Adjusting the speaker volume and level

- 1 Press DVD SET UP in stop mode.**
The Setup Display appears.
- 2 Press \uparrow or \downarrow repeatedly to select “SPEAKER SETUP”, then press ENTER.**
- 3 Press \uparrow or \downarrow repeatedly to select “TEST TONE”, then press ENTER.**
- 4 Press \uparrow or \downarrow repeatedly to select “ON”, then press ENTER.**
You will hear the test tone from each speaker in sequence.
- 5 From your listening position, adjust the value of “BALANCE” and “LEVEL” using $\uparrow/\downarrow/\leftarrow/\rightarrow$.**
The test tone is emitted from both left and right speakers simultaneously.
- 6 Press ENTER when you finish adjusting.**
- 7 Press \uparrow or \downarrow repeatedly to select “TEST TONE”, then press ENTER.**
- 8 Press \uparrow or \downarrow repeatedly to select “OFF”, then press ENTER.**

Tip

To adjust the balance or the level without listening to the test tone, select “BALANCE” or “LEVEL” in step 3 and press ENTER, then adjust the balance or level using \uparrow/\downarrow and press ENTER.

■ LEVEL

You can vary the level of each speaker as follows. Be sure to set “TEST TONE” to “ON” for easy adjustment.

The default settings are underlined.

CENTER <u>0 dB</u>	Adjust the level of the center speaker (–6 dB to +6 dB, 1 dB increments).
SURROUND LEFT <u>0 dB</u>	Adjust the level of the surround speakers (–6 dB to +6 dB, 1 dB increments).
SURROUND RIGHT <u>0 dB</u>	
SUBWOOFER <u>0 dB</u>	Adjust the level of the subwoofer (–10 dB to +10 dB, 1 dB increments).

■ BALANCE

You can vary the balance of the left and right speakers as follows. Be sure to set “TEST TONE” to “ON” for easy adjustment.

The default settings are underlined.

FRONT --- (<u>center</u>)	Adjust the balance between the front left and right speakers (6 steps left or right).
--------------------------------	---

■ TEST TONE

















The speakers will emit a test tone to adjust “BALANCE” and “LEVEL”.

The default settings are underlined.

<u>OFF</u>	The test tone is not emitted from the speakers.
ON	The test tone is emitted from each speaker in sequence while adjusting balance or level. When you select one of the “SPEAKER SETUP” items, the test tone is emitted from both left and right speakers simultaneously.

List of items that can be displayed and selected by disc type

When you press DVD DISPLAY, the following control menu items are displayed.

	Control Menu items	Function
	DISC	Displays the disc name or disc type inserted into the system. Selects the disc to be played.
	TITLE (DVD only) SCENE (VIDEO CD in PBC playback only) TRACK (VIDEO CD only)	Selects the title (DVD), the scene (VIDEO CD in PBC Playback), the track (VIDEO CD) to be played.
	CHAPTER (DVD only) INDEX (VIDEO CD only)	Selects the chapter (DVD) or the index (CD) to be played.
	ALBUM (MP3 only)	Selects the album (MP3) to be played.
	TRACK (CD or MP3 only)	Selects the track (CD or MP3) to be played.
	INDEX (CD only)	Displays the index and selects the index (CD) to be played.
	TIME	Checks the elapsed time and the remaining playback time. Inputs the time code for picture and music searching.
	AUDIO (DVD only)	Changes the audio setting.
	SUBTITLE (DVD only)	Displays the subtitles. Changes the subtitle language.
	ALBUM (JPEG only)	Selects the album (JPEG) to be played.
	FILE (JPEG only)	Selects the file (JPEG) to be played.
	DATE (JPEG only)	Displays the date information.
	ANGLE (DVD only)	Changes the angle.
	PLAY MODE (VIDEO CD/CD/MP3/JPEG* only)	Selects the play mode (Normal Play/Shuffle Play/Program Play) for the disc.
	REPEAT	Plays the entire disc (all titles/all tracks/all files), one title/chapter/album/track or contents of program repeatedly.
	CUSTOM PARENTAL CONTROL	Sets the disc to prohibit playback.

* For JPEG files, Normal Play mode only is available.

Tips

- Each time you press DVD DISPLAY, the Control Menu display changes cyclically as follows:
Control Menu display ↔ Control Menu display off
- The Control Menu items differ depending on the disc.
- The Control Menu icon indicator lights up in green when you select any item except “OFF” (“REPEAT” only).
- The “ANGLE” indicator lights up in green only when multiple angles are recorded on the disc.

System setup item list

When you press DVD SET UP, the following settings are displayed.

The default settings are underlined.

LANGUAGE SETUP (page 24)

OSD	Select the language you want to use from the displayed language list.
DVD MENU	Select the language you want to use from the displayed language list.
AUDIO	Select the language you want to use from the displayed language list.
SUBTITLE	Select the language you want to use from the displayed language list.

SCREEN SETUP (page 26)

TV TYPE	16:9 4:3 LETTER BOX 4:3 PAN SCAN
SCREEN SAVER	<u>ON</u> OFF
BACKGROUND	<u>JACKET PICTURE</u> GRAPHICS BLUE BLACK
COMPONENT OUT	<u>INTERLACE</u> PROGRESSIVE

CUSTOM SETUP (pages 24, 26, 29)

VCD COLOR SYSTEM*	<u>AUTO</u> PAL NTSC
PARENTAL CONTROL →	
TRACK SELECTION	<u>OFF</u> AUTO
AUDIO DRC	OFF <u>STANDARD</u> MAX
DATA CD PRIORITY	<u>MP3</u> JPEG

JPEG DATE	<u>MM/DD/YYYY</u> YYYY/MM/DD DD/MM/YYYY YYYY/DD/MM
-----------	---

SPEAKER SETUP (page 31)

SIZE	FRONT	<u>YES</u>
	CENTER	<u>YES</u> NONE
	SURROUND	<u>YES</u> <u>BEHIND (LOW)*</u> <u>BEHIND (HIGH)*</u> <u>SIDE (LOW)*</u> <u>SIDE (HIGH)*</u> NONE
	SUBWOOFER	<u>NONE</u> YES
DISTANCE	FRONT	3.0 m (1.0 m – 7.0 m)
	CENTER	<u>3.0 m</u> (1.0 m – 7.0 m)
	SURROUND	<u>3.0 m</u> (1.0 m – 7.0 m)
LEVEL	CENTER	<u>0 dB</u> (–6 dB – +6 dB)
	SURROUND	<u>0 dB</u>
	LEFT	(–6 dB – +6 dB)
	SURROUND	<u>0 dB</u>
	RIGHT	(–6 dB – +6 dB)
	SUBWOOFER	<u>0 dB</u> (–10 dB – +10 dB)
BALANCE	FRONT	– – – (<u>center</u>) (6 steps left or right)
TEST TONE	<u>OFF</u>	
	ON	

RESET (page 61)

YES
NO

* Except for European and Latin American models

Tuner

Presetting radio stations

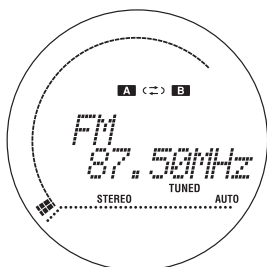
You can preset up to 20 FM stations and 10 AM stations. You can then tune in any of those stations simply by selecting the corresponding preset number.

Automatic tuning preset

You can automatically tune in all of the stations that can be received in your area and then store the radio frequency of the desired stations.

- 1 Press **FUNCTION** repeatedly (or **TUNER/BAND** on the CD/DVD player) to switch the function to **TUNER**.
- 2 Press **BAND** (or **TUNER/BAND** on the CD/DVD player) repeatedly to select "FM" or "AM".
- 3 Press **TUNING MODE** repeatedly until "AUTO" appears.
- 4 Press **TUNING +/-** (or **◀▶** on the CD/DVD player).

The frequency changes as the system scans for a station. Scanning stops automatically when a station is tuned in. At that time, "TUNED" and "STEREO" (for an FM stereo program) appear.

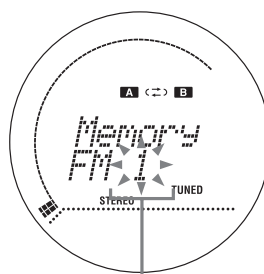


If "TUNED" does not appear and the scanning does not stop

Set the frequency of the desired radio station as described in steps 3 and 4 of "Manual tuning preset".

5 Press **TUNER MEMORY**.

A preset number flashes.



Preset number

- 6 Press **PRESET +/-** (or **◀▶** on the CD/DVD player) repeatedly to select the desired preset number.

- 7 Press **ENTER** (or **PUSH ENTER** on the CD/DVD player).

"Complete!" appears in the display.

- 8 Repeat steps 2 through 7 to store other stations.

Manual tuning preset

You can manually tune in and store the radio frequency of the desired stations.

- 1 Press **FUNCTION** repeatedly (or **TUNER/BAND** on the CD/DVD player) to switch the function to **TUNER**.
- 2 Press **BAND** (or **TUNER/BAND** on the CD/DVD player) repeatedly to select "FM" or "AM".
- 3 Press **TUNING MODE** repeatedly until "PRESET" and "AUTO" disappear.
- 4 Press **TUNING +/-** (or **◀▶** on the CD/DVD player) repeatedly to tune in the desired station.
- 5 Press **TUNER MEMORY**.
A preset number flashes.
- 6 Press **PRESET +/-** (or **◀▶** on the CD/DVD player) repeatedly to select the desired preset number.
- 7 Press **ENTER** (or **PUSH ENTER** on the CD/DVD player).
- 8 Repeat steps 2 through 7 to store other stations.

Other operations

To	Do this
Tune in a station with a weak signal	Follow the procedure described in “Manual tuning preset” (page 36).
Set another station to the existing preset number	Start over from step 2. After step 5, press PRESET +/- (or ◀▶/▶▶ on the CD/DVD player) repeatedly to select the preset number you want to store the other station.

To improve tuner reception

When tuner reception is poor, set CD/DVD player power off by DVD power manage function. DVD power is factory set to on. Use buttons on the CD/DVD player for the operation.

- 1 Press DVD.
- 2 Press I/⏻ to turn off the system.
- 3 Press I/⏻ while holding ■. “DVD POWER OFF” appears.

To set the DVD power on

Repeat the procedure above and “DVD POWER ON” appears.

Note

When “DVD POWER OFF” is selected, disc access time is increased.

To change the AM tuning interval (except for European and Saudi Arabian models)

The AM tuning interval is factory-preset to 9 kHz (or 10 kHz for some areas). To change the AM tuning interval, tune in any AM station first, then turn off the system. While holding ■, press I/⏻. When you change the interval, all the AM preset stations are erased. To reset the interval, repeat the same procedure. Use buttons on the CD/DVD player for the operation.

Tips

- The preset stations are retained for half a day even if you disconnect the mains lead or if a power failure occurs.
- To improve the reception, adjust the supplied antennas or connect an external antenna.

Listening to the radio

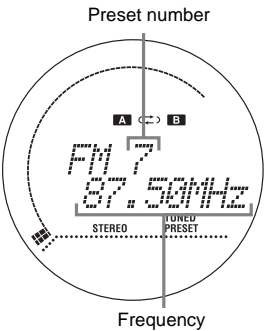
You can listen to a radio station either by selecting a preset station, or by manually tuning in the station.

Listening to a preset station

— Preset Tuning

Preset radio stations in the tuner’s memory first (see “Presetting radio stations” on page 36).

- 1 Press FUNCTION repeatedly (or TUNER/BAND on the CD/DVD player) to switch the function to TUNER.
- 2 Press BAND (or TUNER/BAND on the CD/DVD player) repeatedly to select “FM” or “AM”.
- 3 Press TUNING MODE repeatedly until “PRESET” appears.
- 4 Press PRESET +/- (or ◀▶/▶▶ on the CD/DVD player) repeatedly to select the desired preset station.



Listening to non-preset radio station

— *Manual Tuning*

- 1** Press **FUNCTION** repeatedly (or **TUNER/BAND** on the CD/DVD player) to switch the function to **TUNER**.
- 2** Press **BAND** (or **TUNER/BAND** on the CD/DVD player) repeatedly to select “FM” or “AM”.
- 3** Press **TUNING MODE** repeatedly until “PRESET” and “AUTO” disappear.
- 4** Press **TUNING +/-** (or **◀▶** on the CD/DVD player) repeatedly to tune in the desired station.

Tips

- To improve broadcast reception, adjust the supplied antennas, or connect a commercially available external antenna.
- When an FM stereo program has static noise, press **FM MODE** repeatedly until “MONO” appears. There will be no stereo effect, but the reception will improve.
- Press **TUNING MODE** repeatedly until “AUTO” appears in step 3 above, then press **TUNING +/-** (or **◀▶** on the CD/DVD player). The frequency indication changes and scanning stops when the system tunes in a station (Automatic Tuning).
- To record the radio programs, use manual recording (pages 42 and 48).

Using the Radio Data System (RDS)

(European model only)

What is the Radio Data System?

Radio Data System (RDS) is a broadcasting service that allows radio stations to send additional information along with the regular program signal. This tuner offers convenient RDS features like station name and program type* display. RDS is available only on FM stations.**

Note

RDS may not work properly if the station you are tuned in is not transmitting the RDS signal properly or if the signal is weak.

* The types of programs include NEWS, AFFAIRS (current news), INFO, SPORT, EDUCATE (education programs), DRAMA, CULTURE, SCIENCE, VARIED (interviews, games and comedy), POP M, ROCK M, EASY M, LIGHT M, CLASSICS, OTHER M, WEATHER, FINANCE, CHILDREN, SOCIAL, RELIGION, PHONE IN, TRAVEL, LEISURE, JAZZ, COUNTRY (country music), NATION M (nation's popular music), OLDIES, FOLK M, DOCUMENT (investigative features), TEST (test signal for emergency broadcast), ALARM! (emergency broadcast) and NONE (any programs not defined above).

** Not all FM stations provide RDS service, nor do they provide the same types of services. If you are not familiar with the RDS system, check with your local radio stations for details on RDS services in your area.

Receiving RDS broadcasts

Simply select a station from the FM band.

When you tune in a station that provides RDS services, the station name appears in the display.

To check the RDS information



Each time you press DISPLAY, the display changes cyclically as follows:

Station name* → Frequency → Program type*
→ Clock display → Effect status

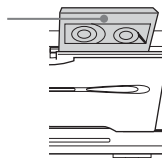
* If the RDS broadcast is not properly received, the station name or the program type may not appear in the display.

Tape – Play

Loading a tape

- 1 Press A  or  B on the tape deck.
- 2 Load a recorded/recordable tape into the cassette holder.

With the side you want to play/record facing forward.

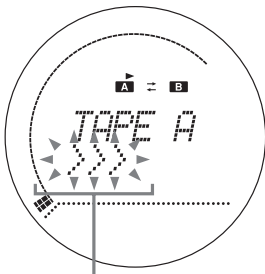


Playing a tape

You can use TYPE I (normal) tape.

- 1 Load a tape.
- 2 Press **FUNCTION** repeatedly (or **TAPE A/B** on the CD/DVD player) to switch the function to **TAPE**.
- 3 Press **DIRECTION** repeatedly to select “**↔**” to play one side. Select “**↔↔**” to play both sides. Select “**RELAY**” (Relay Play)* to play both decks in succession.
- 4 Press **◀▶**.

The tape starts playing.



* Relay play always follow this cyclic sequence:
Deck A (front side) → Deck A (reverse side) →
Deck B (front side) → Deck B (reverse side)

Other operations

To	Do this
Play the reverse side	Press ◀▶ again during play.
Stop play	Press ■.
Pause	Press . Press again to resume play.
Fast-forward or rewind	Press ◀◀ or ▶▶ in stop mode.
Search for the beginning of the next track (AMS)*	Press ▶▶▶ during play. Each time you press the button, the search direction, + (forward), and number of tracks being skipped (1 to 9) appear.
Search for the beginning of the current track or previous track (AMS)*	Press ◀◀◀ during play. Each time you press the button, the search direction, - (back), and number of tracks being skipped (1 to 9) appear.
Remove a tape	Press A ▲ or ▲ B on the tape deck.

* AMS (Automatic Music Sensor)

Note

The AMS function may not operate correctly under the following circumstances:

- When the unrecorded space between songs is less than 4 seconds long.
- When the system is placed near a television.

Tip

If you select “**↔↔**” or “**RELAY**”, the deck stops automatically after repeating the sequence five times.

Tape – Recording

Recording your favorite CD tracks on a tape

— CD-TAPE Synchro Recording

You can record a whole disc (VIDEO CD, CD, MP3) on a tape.

You can use TYPE I (normal) tape. The recording level is adjusted automatically.

Use buttons on the CD/DVD player for the operation.

- 1 Load a recordable tape into deck B.**
- 2 Press TAPE A/B to select deck B, then press ◀▶ repeatedly to select recording side. And press ■ to stop playback.**
- 3 Press DVD and load a disc you want to record.**
- 4 Press CD SYNC.**
Deck B stands by for recording.
“REC” flashes.
- 5 Press DIRECTION on the remote repeatedly to select “↔” to record on one side. Select “↔” (or “RELAY”) to record on both sides.**
- 6 Press ● START.**
Recording starts.

To stop recording

Press ■.

To record a VIDEO CD/CD/MP3 by specifying track order

You can record only your favorite tracks using Program Play. Between steps 2 and 3, perform steps 1 to 5 of “Creating your own program” (page 19). When programming, make sure the playing time for each side do not exceed the length of one side of the tape.

Notes

- For all models, when you press CD SYNC in step 4, the surround effect automatically changes to either HP 2CH or LINK (see “Selecting the surround effect” on page 43).
- You cannot listen to other sources while recording.

Tips

- When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side.
- If you select both sides recording and the tape reaches the end of the front side part-way through a track, the entire track is recorded again from the beginning of the reverse side.

Recording on a tape manually

— Manual Recording

You can record just the portions you like from a disc (DVD, VIDEO CD, CD, MP3), radio or other connected component on a tape. Use buttons on the CD/DVD player for the operation.

- 1 Load a recordable tape into deck B.**
- 2 Press TAPE A/B to select deck B, then press ◀▶ repeatedly to select recording side. And press ■ to stop playback.**
- 3 Press DVD, TAPE A/B, TUNER/BAND or MD (VIDEO) to select the desired source to record.**
 - DVD: To record from this system's CD/DVD player.
 - TAPE: To record from this system's tape deck A.
 - TUNER: To record from this system's tuner.
 - MD or VIDEO: To record from the optional component connected to the MD (VIDEO) IN jacks.
- 4 Press ● START.**

Deck B stands by for recording.
"REC" flashes.
- 5 Press DIRECTION on the remote repeatedly to select "↔" to record on one side. Select "↔↔" (or "RELAY") to record on both sides.**
- 6 Press ● START, then start playing the desired source to record.**

Recording starts.

Other operations

To	Do this
Stop recording	Press ■.
Pause recording	Press ● START. Press ● START again to resume recording.

Notes

- For all models, when you press ● START in step 4, the surround effect automatically changes to either HP 2CH or LINK (see "Selecting the surround effect" on page 43).
- You cannot listen to other sources while recording.
- If TAPE B is selected in step 3, silence is recorded.

Tips

- For recording from the radio:

If noise is heard while recording from the radio, move the respective antenna to reduce the noise.
- When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side.

Sound Adjustment

Adjusting the sound



You can reinforce the bass and create a more powerful sound.

The GROOVE setting is ideal for music sources, and the V-GROOVE setting is ideal for video sources (movies, etc.).

Press GROOVE.

Each time you press the button, the display changes cyclically as follows:

GROOVE ON → V-GROOVE ON →
GROOVE OFF (off)

Selecting the sound effect



Press MUSIC MODE or MOVIE MODE repeatedly to select the preset you desire.

The preset name appears in the display. See the chart “Sound effect options”.

To cancel the effect

Press EFFECT on the CD/DVD player repeatedly until “EFFECT OFF” appears.

Sound effect options

MUSIC MODE

Effect

ROCK	Standard music sources
POP	
JAZZ	
DANCE	
SOUL	
CLASSIC	
P FILE	

MOVIE MODE

Effect

ACTION	Soundtracks and special listening situations
DRAMA	
MUSICAL	

Selecting the surround effect



Press SOUND FIELD repeatedly to select the effect you desire.

Each time you press the button, the display changes cyclically as follows:

■ When the headphones are connected

HP 2CH → HP SURROUND →
HP THEATER^{*1*2} or HP VIRTUAL^{*1*3}

^{*1} DVD or MD (VIDEO) function only

^{*2} Asian, Australian and Saudi Arabian models only

^{*3} Except for Asian, Australian and Saudi Arabian models

Note

HP THEATER or HP VIRTUAL will not appear when

- the system is in stand by for recording.
- the pitch of the music is adjusted with KEY CONTROL.
- the “” indicator is displayed.
- a microphone is connected (except for European model).

■ When the headphones are not connected

DVD or MD (VIDEO) function

SBS MULTI^{*1} (or A.F.D. AUTO^{*2}) →

A.F.D. AUTO^{*1} (or SBS MULTI^{*2}) →

PRO LOGIC → PL II MOVIE →

PL II MUSIC → C. STUDIO EX A^{*1} →

C. STUDIO EX B^{*1} → C. STUDIO EX C^{*1} →

LINK → LINK SURROUND →

2CH SURROUND → 2CH STEREO

TUNER or TAPE function

LINK → LINK SURROUND →


2CH SURROUND → 2CH STEREO

^{*1} Asian, Australian and Saudi Arabian models only

^{*2} Except for Asian, Australian and Saudi Arabian models

Note

Even when the system is in DVD or MD (VIDEO) function, the display changes the same as in TUNER or TAPE function except when

- the system is in stand by for recording.
- the pitch of the music is adjusted with KEY CONTROL.
- the “” indicator is displayed.
- a microphone is connected (except for European model).

A.F.D. AUTO: Auto Format Direct Auto

SBS MULTI: Sound Broad System Multi Mode.

This mode lets you enjoy audio playback of all types of discs from multiple speakers.

PRO LOGIC: Performs Pro Logic decoding.

The source recorded in 2 channels is decoded into 4.1 channels.

PL II MUSIC: Performs the Pro Logic II music mode decoding. This setting is ideal for normal stereo sources such as CDs.

PL II MOVIE: Performs Pro Logic II movie mode decoding. This setting is ideal for movies encoded in Dolby Surround. In addition, this mode can reproduce sound in 5.1 channels when watching videos of overdubbed or old movies.

LINK: The front speaker channels are output at both the front and surround speakers.

Note

If “NONE” is selected in surround speaker setup, no sound will be output from the surround speakers even if “LINK” or “LINK SURROUND” is selected.

About Cinema Studio EX

Cinema Studio EX is ideal for enjoying the movie software encoded with multi channel format, such as the Dolby Digital DVD. This mode reproduces the sound characteristics of Sony Pictures Entertainment’s studios. Cinema Studio EX consists of the following three elements.

- Virtual Multi Dimension
Creates 5 sets of virtual speakers surrounding the listener from a single pair of actual surround speakers.

- Screen Depth Matching

In a movie theater, sound seems to come from inside the image reflected on the movie screen. This element creates the same sensation in your listening room by shifting the sound of the front speakers “into” the screen.

- Cinema Studio Reverberation

Reproduces the reverberations peculiar to a movie theater.

Cinema Studio EX is the integrated mode which operates these elements simultaneously.

■ C.STUDIO EX A (Cinema Studio EX A)

Reproduces the sound characteristics of the Sony Pictures Entertainment “Cary Grant Theater” cinema production studio. This is a standard mode, great for watching most any type of movie.

■ C.STUDIO EX B (Cinema Studio EX B)

Reproduces the sound characteristics of the Sony Pictures Entertainment “Kim Novak Theater” cinema production studio. This mode is ideal for watching science-fiction or action movies with lots of sound effects.

■ C.STUDIO EX C (Cinema Studio EX C)

Reproduces the sound characteristics of the Sony Pictures Entertainment scoring stage. This mode is ideal for watching musicals or classic films where music is featured in the soundtrack.

Note

The effects provided by the virtual speakers may cause increased noise in the playback signal.

About DCS (Digital Cinema Sound)

C.STUDIO EX A, EX B and EX C use DCS technology. In the collaboration with Sony Pictures Entertainment, Sony measured the sound environment of their studios and integrated the data of the measurement and Sony’s own DSP (Digital Signal Processor) technology to develop “Digital Cinema Sound”. “Digital Cinema Sound” simulates in a home theater an ideal movie theater sound environment based on the preference of movie director.

Adjusting the graphic equalizer and storing

— Personal file



You can adjust the sound by raising or lowering the levels of specific frequency ranges, then store a personal file (P FILE) in the memory. Before operating, first select the basic audio emphasis you want for your sound. Use buttons on the CD/DVD player for the operation.

- 1 Press EQ EDIT.**
The first parameter is displayed.
- 2 Move control lever to ← or → to select the frequency range, and then move control lever to ↑ or ↓ to select the gain (dB).**
- 3 Press PUSH ENTER.**
“P FILE” appears.
This setting is automatically stored as a personal file.
The setting is overwritten each time you press PUSH ENTER.

Other operations

To	Do this
Call up a personal file	Press MUSIC MODE repeatedly until “P FILE” appears.
Cancel a personal file	Press EFFECT repeatedly until “EFFECT OFF” appears.

Singing along: Karaoke

(Except for European model)






You can sing along by turning down the singer’s voice. You need to connect an optional microphone.

Use buttons on the CD/DVD player for the operation.

- 1 Turn MIC LEVEL to MIN to turn down the microphone control level.**
- 2 Connect an optional microphone to the microphone jack.**
- 3 Press KARAOKE/MPX repeatedly to obtain the karaoke effect you desire.**
Each time you press the button, the display changes cyclically as follows:
KARAOKE PON → MPX L*¹ → MPX R*¹ → KARAOKE OFF*²
To sing karaoke of multiplex CD, select “MPX L” or “MPX R”.
^{*1} except for DTS-CD or DVD
^{*2} Karaoke mode is canceled.
- 4 Start playing the music.**
- 5 Adjust the microphone volume by turning MIC LEVEL.**

Other operations

To	Do this
Use VIDEO CDs or DVDs	Turn on your TV and switch it to the appropriate video input.
Cancel karaoke mode	Turn MIC LEVEL to MIN and disconnect the microphone from the microphone jack, then press KARAOKE/MPX repeatedly until “  ” disappears.
Adjust the microphone echo	Turn ECHO LEVEL* to adjust the echo effect. To cancel the echoing, turn ECHO LEVEL* to MIN.
Adjust the pitch of music	Press KEY CONTROL on the remote to suit your vocal range. Adjust the key higher or lower in 13 halftone steps (♭6 – #6) by pressing  or  repeatedly, then press ENTER.

* Except for Latin American model

Notes

- The instrumental sound may be reduced as well as the singer's voice when the sound is recorded in monaural.
- The singer's voice may not be reduced when:
 - only a few instruments are playing.
 - a duet is being played.
 - the source has strong echoes or chorus.
 - the singer's voice deviates from the center.
 - the voice on the source is singing in high soprano or tenor.
- If you connect the microphone while playing a 5.1 channel, the sound switches to 2 channel.
- If the disc changes, karaoke mode is canceled.
- With some songs, vocals may not be canceled when you select “KARAOKE PON”.







Tip

For European model:

You can turn down the singer's voice by pressing MPX.

Mixing and recording sounds

Use buttons on the CD/DVD player for the operation.

- 1 Do the procedure for “Singing along: Karaoke” (steps 1 through 5). Then, load a recordable tape in deck B.**
- 2 Press the function button of the source you want to record (e.g., DVD).**
When you want to record from TAPE A, press TAPE A/B repeatedly until TAPE A is selected.
- 3 Press .**
Deck B stands by for recording. “REC” flashes.
- 4 Press DIRECTION on the remote repeatedly to select “” to record on one side. Select “” (or “RELAY”) to record on both sides.**
- 5 Press .**
- 6 Press   to start playing the source to be recorded.**

Start singing along with the music.

To stop recording

Press .

Note

When you select any function other than DVD in step 2, karaoke and key control settings are canceled.

Tips

- If acoustic feedback (howling) occurs, move the microphone away from the speakers or change the direction of the microphone.
- If you want to record your voice through the microphone only, you can do so by selecting the DVD function and not playing a disc.
- When high level sound signals are input, the system automatically adjusts the recording level to prevent distortion of the recorded sound signal (Auto Level Control function).

Falling asleep to music

— Sleep Timer

You can set the system to turn off after a certain time, so that you can fall asleep to music.

Press SLEEP.

Each time you press the button, the minute display (the turn-off time) changes cyclically as follows:

OFF → AUTO* → 90min → 80min → 70min
→ ... → 10min

* The system automatically turns off in 100 minutes or after the current disc or tape finishes playing.

Other operations

To	Do this
Check the remaining time**	Press SLEEP once.
Change the time to turn off	Press SLEEP repeatedly to select the time you want.
Cancel the Sleep Timer Function	Press SLEEP repeatedly until “SLEEP OFF” appears.

** You cannot check the remaining time if you select “AUTO”.

Tip

You can use the Sleep Timer, even if you have not set the clock.

Waking up to music

— Daily Timer

You can wake up to music at a preset time. Make sure you have set the clock (see “Setting the clock” on page 12).

1 Press FUNCTION repeatedly to select the sound source you want to play.

- DVD: Load a disc. To start from a specific track, make a program (see “Creating your own program” on page 19).
- TAPE: Load a tape.
- TUNER: Tune in the preset radio station (see “Listening to the radio” on page 37).

2 Press VOL +/- (or turn VOLUME on the CD/DVD player) to adjust the volume.

3 Press CLOCK/TIMER SET.

“DAILY SET?” appears.

4 Press ENTER.

“ON” appears and the hour indication flashes.

5 Set the time to start playing.

Press ↑ or ↓ repeatedly to set the hour, then press →.

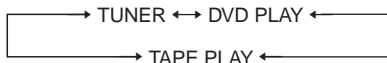
The minute indication flashes.

Press ↑ or ↓ repeatedly to set the minute, then press ENTER.

6 Set the time to stop playing following the same procedure as step 5.

7 Press ↑ or ↓ repeatedly until the desired sound source appears.

Each time you press the button, the display changes cyclically as follows:



8 Press ENTER.

The start time, the stop time, and the sound source appear in turn, before the original display returns.

9 Press I/⏻ to turn off the system.

Other operations

To	Do this
Check the setting	1 Press CLOCK/TIMER SELECT. 2 Press ↑ or ↓ repeatedly until “DAILY SELECT?” appears, then press ENTER.
Change the setting	Start over from step 1.
Cancel the timer	1 Press CLOCK/TIMER SELECT. 2 Press ↑ or ↓ repeatedly until “TIMER OFF?” appears, then press ENTER.

Notes

- You cannot activate the Daily Timer and Timer recording at the same time.
- If you use the Daily Timer and the Sleep Timer at the same time, the Sleep Timer has priority.
- If the system is on at the preset time, the Daily Timer will not be activated.
- You cannot use the optional component connected to MD (VIDEO) IN L/R jacks as the sound source for Daily Timer.

Tip

The system turns on 15 seconds before the preset time.

Timer recording radio programs

You can record a preset radio station from a specified time.

To timer record, you must first preset the radio station (see “Presetting radio stations” on page 36) and set the clock (see “Setting the clock” on page 12).

- 1 Tune in the preset radio station (see “Listening to a preset station” on page 37).**
- 2 Press CLOCK/TIMER SET.**
“DAILY SET?” appears.
- 3 Press **↑** or **↓** repeatedly to select “REC SET?”, then press ENTER.**
“ON” appears and the hour indication flashes.
- 4 Set the time to start recording.**
Press **↑** or **↓** repeatedly to set the hour, then press **→**.
The minute indication flashes.
Press **↑** or **↓** repeatedly to set the minute, then press ENTER.
- 5 Set the time to stop recording following the same procedure as step 4.**
The start time, the stop time, and the preset radio station to be recorded (e.g., “FM20 → TAPE”) appear in turn, before the original display returns.
- 6 Load a recordable tape into deck B.**
- 7 Press **I/⏻** to turn off the system.**

Other operations

To	Do this
Check the setting	1 Press CLOCK/TIMER SELECT. 2 Press ↑ or ↓ repeatedly until “REC SELECT?” appears, then press ENTER.
Change the setting	Start over from step 1.
Cancel the timer	1 Press CLOCK/TIMER SELECT. 2 Press ↑ or ↓ repeatedly until “TIMER OFF?” appears, then press ENTER.

Notes

- You cannot activate the Daily Timer and Timer recording at the same time.
- If you use the Timer recording and the Sleep Timer at the same time, the Sleep Timer has priority.
- If the system is on at the preset time, the Timer recording will not be activated.
- The volume is reduced to minimum during recording.
- Do not operate the system from the time the system turns on until the recording starts (about 15 seconds before the preset time).
- Note that if the Timer Recording is set at the same time as the Daily Timer sound source is set to tape, the Timer Recording sound may be recorded onto the tape.

Display

Turning off the display

— Power Saving Mode

The demonstration display (display window and buttons lighting and flashing even when the system power is off) and the clock display can be turned off to minimize the amount of power consumed during standby (Power Saving Mode).

Press DISPLAY repeatedly while the system is off until the demonstration display or the clock display disappears.

To cancel Power Saving Mode

Press DISPLAY while the system is off. Each time you press the button, the display switches cyclically as follows:

Demonstration display → Clock display* → No display (Power Saving Mode)

* “_ _: _ _” appears if you have not set the clock.

Note

You cannot perform the following operations in Power Saving Mode.

- setting the clock
- turning on the system by pressing the function buttons

Tips

- The timer continues to operate in Power Saving Mode.
- I/⏻ indicator lights up even in Power Saving Mode.

Adjusting the brightness of the display back light

Press DIMMER repeatedly to select the desired setting while the system is on.

The display changes cyclically as follows:

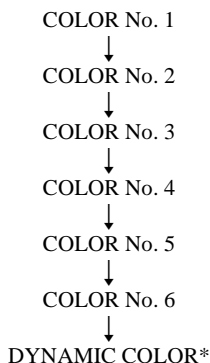
DIMMER OFF → DIMMER 1 → DIMMER 2
→ DIMMER 3*

* DIMMER 3 is the darkest.

Selecting display color

Press COLOR SELECT on the CD/DVD player while the system is on.

Each time you press COLOR SELECT on the CD/DVD player, display color changes as follows:



* When selected display color alternates with changes in audio levels.

Viewing information about the disc in the display

You can check the playing time and remaining time of the current track or that of the disc. When a DVD/CD-TEXT disc or a disc with MP3 audio tracks or JPEG files is loaded, you can also check the information recorded on disc, such as the titles.

When the system detects DVD/CD-TEXT discs, the “TEXT” indication appears in the display.

Checking the remaining time and titles (DVD/VIDEO CD/CD/MP3/JPEG)

Press DISPLAY during Normal Play.

Each time you press the button, the display changes cyclically as follows:

■ When playing a DVD

Current title number, current chapter number and elapsed playing time → Current title number, current chapter number and remaining time → Current chapter number and elapsed playing time → Current chapter number and remaining time → Title^{*1} → Clock display (for eight seconds) → Effect status → Sound Field status → Karaoke status^{*2}

■ When playing a CD or VIDEO CD without PBC function

Current track number and elapsed playing time → Current track number and remaining time → Elapsed playing time of the current disc^{*3} → Remaining time of the current disc^{*3} → Track title^{*1} → Clock display (for eight seconds) → Effect status → Sound Field status → Karaoke status^{*2}

■ When playing a VIDEO CD with PBC function (Ver. 2.0)

Elapsed playing time → Clock display (for eight seconds) → Effect status → Sound Field status → Karaoke status^{*2}

■ When playing an MP3


Current track number and elapsed playing time → Current track number and remaining time → Track title^{*1*4} → Album name^{*1} → Clock display (for eight seconds) → Effect status → Sound Field status → Karaoke status^{*2}

■ When playing a JPEG

Current file number → File name^{*1} → Album name^{*1} → Clock display (for eight seconds) → Effect status → Sound Field status → Karaoke status^{*2}

^{*1} Only alphabet letters and numbers can be displayed.

In addition, nothing is displayed for discs without DVD/CD text and file/album name.

^{*2} Only when the “” indicator is displayed.

^{*3} These are not displayed during Shuffle Play or Program Play.

^{*4} When you play back a track with an ID3 tag ver. 1, the ID3 tag appears. The ID3 tag displays only the track title information.

Checking the total playing time and titles (DVD/VIDEO CD/CD/MP3/JPEG)

Press DISPLAY in stop mode.

Each time you press the button, the display changes cyclically as follows:

■ When a DVD/VIDEO CD/CD/MP3/JPEG is in Normal Play mode

TOC display^{*1} or total album number of the disc^{*2} or total track number of the current album^{*3} → Disc title^{*4} or volume label^{*5} or album name^{*5} → Clock display (for eight seconds) → Effect status (for eight seconds) → Sound Field status → Karaoke status^{*6}


^{*1} TOC = Table of Contents; displays, total number of tracks on the disc, and total playing time of the disc

^{*2} For discs with JPEG image files or MP3 audio tracks in Normal Play or Shuffle Play mode

^{*3} For discs with JPEG image files or MP3 audio tracks in Album Play or Album Shuffle Play mode

^{*4} For discs with DVD/CD text

^{*5} For discs with JPEG image files or MP3 audio tracks, album titles or volume label may not be displayed depending on the play mode

^{*6} Only when the “” indicator is displayed.


Depending on the disc, some DVD/CD-TEXT information may not appear.

■ When a CD/MP3 is in Program Play mode

The last track number of the program and the total playing time → Disc title*¹ or volume label*² → Clock display (for eight seconds) → Effect status → Sound Field status → Karaoke status*³

*¹ For discs with CD text

*² For discs with MP3 audio tracks

*³ Only when the “” indicator is displayed.

Note

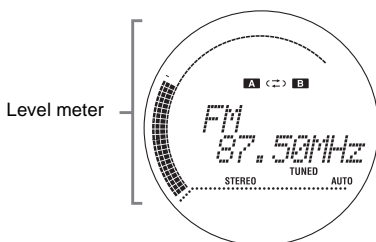
Depending on the DVD, the disc information may not be displayed.

Tip

You can check the playing time of the disc using the Control Menu (see “Viewing information about the disc in the on-screen display” on page 52).

Viewing the level meter

The level meter in the display shows changes in audio source input levels and volume setting.



Note

Depending on the audio source being played, the level meter may not change.

Viewing information about the disc in the on-screen display

You can check the playing time and remaining time of the current title, chapter, or track, and the total playing time of the disc.

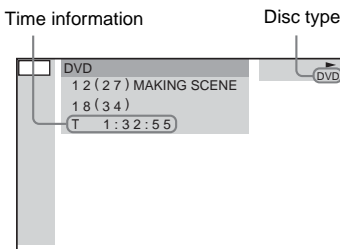
You can also check the DVD/CD text and file/album name recorded on the disc.

1 Press DVD DISPLAY during play.

The Control Menu appears.

2 Press DISPLAY repeatedly to change the time information.

The display and the kinds of time that you can change depend on the disc you are playing.



■ When playing a DVD

- T **.*.*.*
Elapsed playing time of the current title
- T_**.*.*.*
Remaining time of the current title
- C **.*.*.*
Elapsed playing time of the current chapter
- C_**.*.*.*
Remaining time of the current chapter
- **.*.*.*
Elapsed playing time of the current title without menu or chapters

■ When playing a VIDEO CD (with PBC functions)

- **:**:*

Elapsed playing time of the current scene

■ When playing a VIDEO CD (without PBC functions) or CD

- T **:**:*

Elapsed playing time of the current track

- T- **:**:*

Remaining time of the current track

- D **:**:*

Elapsed playing time of the current disc

- D- **:**:*

Remaining time of the current disc

■ When playing an MP3

- T **:**:*

Playing time of the current track

- T- **:**:*

Remaining time of the current track

To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu disappears.

Notes

- Only alphabet letters and numbers can be displayed.
- Depending on the type of disc being played, the system can only display a limited number of characters. Also, depending on the disc, not all text characters are displayed.

Checking the date information

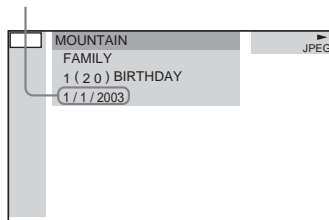
(JPEG only)

You can check the date information during play when the Exif* tag is recorded in the JPEG image data.

Press DVD DISPLAY during play.

The Control Menu appears.

Date information



* “Exchangeable Image File Format” is a digital camera image format defined by the Japan Electronics & Information technology Industries Association.

Note

If there is no date information or data is damaged on the disc, the system cannot display the date information.

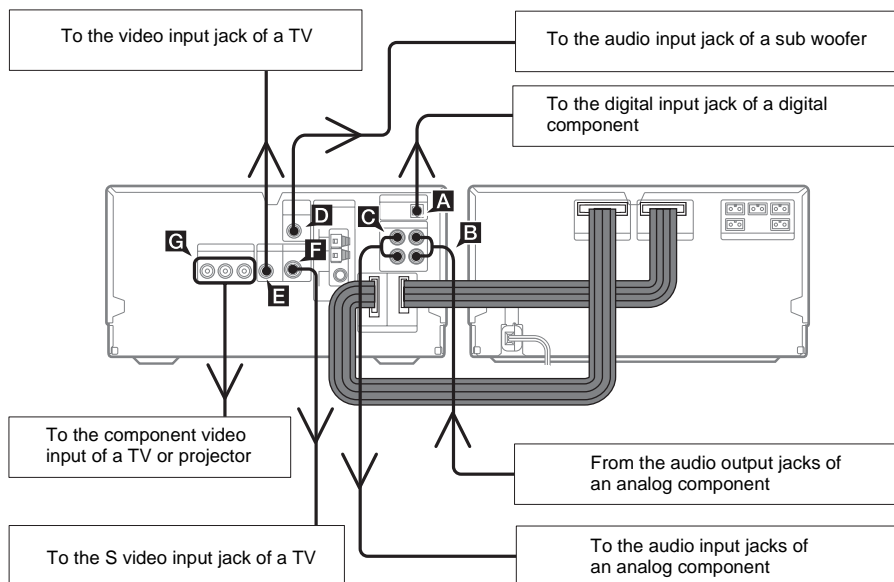
Tip

You can change the date information order by selecting “JPEG DATE” setting in CUSTOM SETUP (page 25).

Optional Components

Hooking up optional components

To enhance your system, you can connect optional components. Refer to the operating instructions provided with each component. European model is used for illustration purpose.



A DVD DIGITAL (OPTICAL) OUT jack (European and Australian models only)

Use a digital optical cable (square, not supplied) to connect an audio input of the optional digital component (such as an MD deck) to this jack. You can then record digital audio from this system. If the jack is covered with a cap, remove it before use.

Note

When playing a DVD, VIDEO CD or MP3 audio tracks, you cannot output digital audio.

B MD (VIDEO) IN L/R jacks

Use audio cords (not supplied) to connect an optional analog component (MD deck or VCR, etc.) to these jacks. You can then record or listen to from the component through this system.

C MD (VIDEO) OUT L/R jacks

Use audio cords (not supplied) to connect an optional analog component (MD deck or VCR, etc.) to these jacks. You can then output audio to the component from this system.

D SUB WOOFER OUT jack

Use an audio cord (not supplied) to connect an optional sub woofer* to this jack. You can then output audio to the component from this system.

* SA-WZ8/SA-WZ80 is recommended.

In some areas, the SA-WZ8/SA-WZ80 may not yet be available.

Note

The effects may be limited or noise may occur depending on the connected sub woofer or the type of music being played. For details, consult your nearest Sony dealer.

E VIDEO OUT jack

Use a video cord to connect an optional component (such as a TV) to this jack. You can then output the video to the component from this system, and enjoy the video images of DVDs, etc. Make sure to match the color of the plugs and the connectors.

F S VIDEO OUT jack

Use an S video cord (not supplied) to connect an optional TV to this jack. You can enjoy higher quality video images.

G COMPONENT VIDEO OUT jacks

Use a component cable (not supplied) to connect the video input of the TV or projector to these jacks. If your TV accept progressive format file signals, you must use this connection and set “COMPONENT OUT” to “PROGRESSIVE” in “Adjusting the TV screen” (page 26).

Listening to audio from a connected component

Use buttons on the CD/DVD player for the operation.

1 Connect the audio cords.

See “Hooking up optional components” on page 54.

2 Press MD (VIDEO) to switch the function to MD or VIDEO.

Start playing the connected component.

Note

If the sound is distorted or too loud when “VIDEO” is selected or you want to switch back to “MD”, repeat the operation described above to switch to “MD”.

Tip

If you cannot select “VIDEO” by pressing MD (VIDEO) repeatedly, hold down MD (VIDEO) and then press I/⏻ while the power is on. The function will change from “MD” to “VIDEO”, and “VIDEO” will appear in the display. To change back to “MD”, repeat the same procedure.

Recording audio from a connected component

1 Connect the audio cords.

See “Hooking up optional components” on page 54.

2 Start recording manually.

See “Recording on a tape manually” on page 42.

Recording on a connected component

Making a digital recording on an MD

1 Connect an optical cable.

See “Hooking up optional components” on page 54.

2 Start recording.

Refer to the operating instructions provided with the connected component.

Note

When making a digital recording from the CD/DVD player of this system to an optional component (MD deck, etc.) connected to the DVD DIGITAL (OPTICAL) OUT jack, start the optional component recording in advance.

Making an analog recording

1 Connect the audio cords.

See “Hooking up optional components” on page 54.

2 Start recording.

Refer to the operating instructions provided with the connected component.

Note

Audio may be interrupted when:

- SOUND FIELD is pressed.
- the headphones are connected or removed.
- a microphone is connected or removed.

Making an analog recording from a VIDEO CD to a video tape

1 Connect optional audio cords from MD (VIDEO) OUT L/R jacks and the supplied video cord from VIDEO OUT jack to your VCR.

2 Start recording.

Refer to the operating instructions provided with the connected component.

Note

You cannot record from a VIDEO CD to an MD digitally. When you record from a VIDEO CD to an MD, make an analog recording on MD.

Troubleshooting

Problems and remedies

Should you encounter a problem with your system, do the following:

- 1 Make sure the mains lead and speaker cords are correctly and firmly connected.
- 2 Find your problem in the troubleshooting checklist below and take the indicated corrective action.

If the problem persists after doing all of the above, consult your nearest Sony dealer.

In case of repairing, please bring the entire system set (except for the speaker) to the service station.

When the I/⏻ indicator flashes

Immediately unplug the mains lead and check the following items.

- Are the system control cables connected correctly?
- If your system has a voltage selector, is the voltage selector set to the correct voltage? Check the voltage for your region, then make sure the voltage selector is set correctly.
- Are the + and – speaker cords short-circuited?
- Are you using the supplied speakers?
- Is anything blocking the ventilation holes on the rear of the system?

Check all the above items and fix any problems found. After I/⏻ indicator stops flashing, reconnect the mains lead and turn on the system. If the indicator still flashes, or if the cause of the problem cannot be found even after checking all the above items, consult your nearest Sony dealer.

General

The display starts flashing as soon as you plug in the power cord even though you have not turned on the system (see step 5 of “Hooking up the system” (page 8)).

- Press I/⏻ while the system is off. The demonstration disappears.

“— —:— —” appears in the display.

- A power interruption has occurred. Set the clock (page 12) and timer settings (pages 47 and 48) again.

The clock setting/radio presetting/timer is canceled.

- Redo the following:
 - “Setting the clock” (page 12)
 - “Presetting radio stations” (page 36)
 - “Falling asleep to music” and “Waking up to music” (page 47)
 - “Timer recording radio programs” (page 48)

There is no sound.

- If your system has a voltage selector, make sure the voltage selector is set to the correct voltage.
- Press VOL +/- or turn VOLUME on the CD/DVD player clockwise.
- Make sure the headphones are not connected.
- Check the speaker connections (page 8).
- The protective device on the CD/DVD player has been activated because of a short circuit. Turn off the system, eliminate the short-circuit problem and turn on the system again.
- There is no audio output during Timer recording.

Sound comes from one channel, or unbalanced left and right volume.

- Place the speakers as symmetrically as possible.
- Connect the supplied speakers.

There is severe hum or noise.

- Move the system away from the source of noise.
- Connect the system to a different mains.
- Install a noise filter (commercially available) to the mains lead.

The sound from the component connected to MD (VIDEO) jacks is distorted.

- If “VIDEO” appears in the display when you press MD (VIDEO) on the CD/DVD player switch to “MD” function (see “Listening to audio from a connected component” on page 55).

There is acoustic feedback.

- Reduce the volume.
- Move the microphone away from the speakers or change the direction of the microphone.

The timer cannot be set.

- Set the clock again (page 12).

The timer does not function.

- Check the timer setting and set the correct time (pages 47 and 48).
- Cancel the Sleep Timer Function (page 47).

The remote does not function.

- Remove the obstacle.
- Move the remote closer to the system.
- Point the remote at the system’s sensor.
- Replace the batteries (size AA/R6).
- Locate the system away from the fluorescent light.

The system can not be turned on even though you have pressed I/⏻.

- Make sure the mains lead is connected to mains.
- Make sure the system control cables are connected correctly.

The color irregularity on a TV screen persists.

- Turn off the TV set once, then turn it on after 15 to 30 minutes. If the color irregularity still persists, place the speakers farther away from the TV set.

Level meter does not change.

- Depending on the audio source being played, the level meter may not change.

Speakers

Sound comes from one channel or unbalanced left and right volume.

- Check the speaker connection and speaker placement.
- The source being played back is monaural.
- Adjust the balance parameters (page 33).

The sound comes from the center speaker only.

- Depending on the disc, the sound may come from the center speaker only.

There is no sound from the center speaker.

- Set the center speaker level to the appropriate level.

There is no sound from the surround speakers.

- Set the surround speakers level to the appropriate level.
- The software being played back has limited sound effects. Check the volume with the test tone.

There is no sound from the sub woofer.

- Make sure that the SUBWOOFER setting is set to “YES” (page 31).

Sound lacks bass.


- Check that the speaker’s + and – jacks are connected correctly.
-

CD/DVD player



The disc tray does not open and “LOCKED” appears.

- Contact your Sony dealer or local authorized Sony service facility.


The disc tray does not close.

- Place the disc correctly.
- Always close the tray by pressing  on the CD/DVD player. Trying to press the tray closed with your fingers may cause problems with the player.

The disc does not eject.

- You cannot eject the disc during CD Synchro Recording. Press  to cancel the CD Synchro Recording, then press  on the CD/DVD player to eject the disc.
- Consult your nearest Sony dealer.

Play does not start.

- Open the disc tray and check whether a disc is loaded.
- Wipe the disc clean (page 63).
- Replace the disc.
- Place the disc that this system can play (page 5).
- Place the disc correctly.
- Place the disc in the tray with the label side up.
- Remove the disc and wipe away the moisture on the disc, then leave the system turned on for a few hours until the moisture evaporates.
- Press  to start play.
- The region code on the DVD does not match the system.


Disc access takes a long time.

- Set “DVD POWER ON” by DVD power manage function (page 37).

The sound skips.

- Wipe the disc clean (page 63).
- Replace the disc.
- Try moving the system to a place without vibration (e.g., on top of a stable stand).
- Try moving the speakers away from the system, or placing them on separate stands. When you listen to a track with bass sounds at high volume, the speaker vibration may cause the sound to skip.

Play does not start from the first track.

- Press PLAY MODE repeatedly until both “PGM” and “SHUF” disappear to return to Normal Play.
- Resume Play has been selected. Press  in stop mode, then start playback (page 15).
- The title, DVD or PBC menu automatically appears on the screen.

Playback starts automatically.

- The DVD features an auto playback function.

Playback stops automatically.

- Some discs may contain an auto pause signal. While playing such a disc, the playback stops at the auto pause signal.

The system turned off during DVD playback.

- If approximately one hour passes with DVD playback paused or with the DVD top menu or a DVD menu displayed during DVD playback, the system automatically turns off.

You cannot perform some functions such as Stop, Search, Slow-motion Play, Repeat Play, Shuffle Play, or Program Play.

- Depending on the disc, you may not be able to do some of the operations above. Refer to the operating instructions supplied with the disc.

MP3 audio track cannot be played back.

- Recording was not performed according to the ISO9660 level 1, level 2 format or Joliet in the expansion format.
- The MP3 audio track does not have the extension “.MP3”.
- The data is not stored in MP3 format.
- The system can play only MP3 (MPEG1 Audio Layer3) audio.
- Remove the disc and select “CUSTOM SETUP” from the setup items. Then select “DATA CD PRIORITY” and set to “MP3” again.
- Playback is possible up to 8 levels.

MP3 audio tracks take longer to play back than others.

- After the system reads all tracks on the discs, playback may take more time than usual if:
 - the number of albums or tracks on the disc is very large.
 - the album and track organization structure is very complex.

The JPEG image file cannot be played.

- The DATA CD is not recorded in JPEG format that conforms to ISO9660 Level 1/Level 2 or Joliet.
 - The JPEG image file does not have the extension “.JPG” or “.JPEG”.
 - The data is not formatted in JPEG even though it has the extension “.JPG” or “.JPEG”.
 - Length or width of image is more than 4720 dots.
 - Remove the disc and select “CUSTOM SETUP” from the setup items. Then select “DATA CD PRIORITY” and set to “JPEG” again (page 25).
 - Playback is possible up to 8 levels.
 - Progressive JPEG format files cannot be played on this system.
-

The track title and ID3 tag do not appear correctly.

- Use a disc that conforms with ISO9660 level 1, level 2 or Joliet in the expansion format.
 - The disc ID3 tag is not ver. 1.
-

The disc title, album title, track title and ID3 tag appear as spaces. The CD characters appear as spaces.

- The character codes that can be displayed by this system are numbers and alphabet only. Other characters appear as spaces.
-

The sound loses stereo effect when you play a VIDEO CD, or a CD.

- Select “KARAOKE OFF” in step 3 of “Singing along: Karaoke” (page 45).
 - Make sure the system is connected appropriately.
-

The surround effect is difficult to hear when you are playing a Dolby Digital or MPEG audio sound track.

- Make sure the sound field function is on (page 43).
 - Check the speaker connections and setting (pages 8 and 31).
 - Depending on the DVD, the output signal may not be the entire 5.1 channel. It may be monaural or stereo, even if the sound track is recorded in Dolby Digital or MPEG audio format.
-

Audio dropout occurred when recording to an optional component connected to MD (VIDEO) OUT L/R jacks.

- Audio data may be intermittently output from MD (VIDEO) OUT L/R jacks while recording if the following are done:
 - SOUND FIELD is pressed
 - the headphones are connected or removed
 - a microphone is connected or removed
-

The recording was not done properly when making a digital recording from the CD/DVD player of this system to an optional component connected to the DVD DIGITAL (OPTICAL) OUT jack.

- Audio data is output from the DVD DIGITAL (OPTICAL) OUT jack without any surround effects or other sound processing, so that the audio data is output slightly ahead of the sound from the speakers. Therefore, start the optional component recording in advance when making a digital recording to a connected optional component (MD deck, etc.).
-

Picture

There is no picture.

- Press DVD on the CD/DVD player.
 - Check that the system is connected securely.
 - The video cord is damaged. Replace it with a new one.
 - Make sure you connect the system to the video input jack of your TV (page 9).
 - Make sure you turn on the TV and operate the TV correctly.
 - Make sure you select the video input on the TV so that you can view the pictures from the system.
 - Make sure you set the color system correctly, according to your TV (color) system.
-

Picture noise appears.

- Clean the disc.
 - If video from your CD/DVD player has to go through your VCR to get to your TV, the copy-protection applied to some DVD programs could affect picture quality. If you still experience problems after checking your connections, please try connecting your CD/DVD player directly to your TV's S video-input, if your TV is equipped with this input (page 9).
 - Except for European and Latin American models, the color system is different. Set the color system to match your TV (page 27).
-

The aspect ratio of the screen cannot be changed even though you set “TV TYPE” in “SCREEN SETUP” in the Setup Display when you play a wide picture.

- The aspect ratio is fixed on the DVD.
 - If you connect the system with the S-video cable, connect directly to the TV. Otherwise, you may not change the aspect ratio.
 - Depending on the TV, you may not change the aspect ratio.
-

Messages do not appear on the screen in the language you want.

- Select the language you want for the on-screen display in “OSD” under “LANGUAGE SETUP” in the Setup Display (page 24).

The language for the sound track cannot be changed.

- Multilingual tracks are not recorded on the DVD being played.
- The DVD prohibits changing the language for the sound track.

The subtitle language cannot be changed.

- Multilingual subtitles are not recorded on the DVD being played.
- The DVD prohibits changing the subtitles.

The subtitle cannot be turned off.

- The DVD prohibits turning off subtitles.

The angles cannot be changed.

- Multi-angles are not recorded on the DVD being played.
 - The DVD prohibits changing the angles.
-

Tuner

Severe hum or noise/stations cannot be received.

- Set the proper band and frequency (page 36).
- Connect the antenna properly (page 9).
- Find a place and an orientation that provide good reception, then set up the antenna again. If you cannot obtain good reception, we recommend you connect a commercially available external antenna.
- The supplied FM lead antenna receives signals along its entire length, so make sure you extend it fully.
- Locate the antennas as far away from the speaker cords as possible.
- Consult your nearest Sony dealer if the supplied AM antenna has come off the plastic stand.
- Try turning off surrounding electrical equipment.
- Set “DVD POWER OFF” by DVD power manage function (page 37).

A stereo FM program cannot be received in stereo.

- Press FM MODE until “MONO” disappears.
-

Tape deck

The tape does not record or play, or there is a decrease in sound level.

- The heads are dirty. Clean them (page 63).
- The record/playback heads are magnetised. Demagnetise them (page 63).

The tape does not erase completely.

- The record/playback heads are magnetised. Demagnetise them (page 63).

There is excessive wow or flutter, or the sound drops out.

- The capstans or pinch rollers are dirty. Clean them (page 63).

Noise increases or the high frequencies are erased.

- The record/playback heads are magnetised. Demagnetise them (page 63).

The tape does not record.

- No cassette is loaded. Load a cassette.
- The tab has been removed from the cassette. Cover the broken tab with adhesive tape (page 63).
- The tape has wound to the end.

After pressing ◀▶, there is a mechanical noise, “Eject” appears in the display, and the unit enters standby mode automatically.

- Insert the cassette correctly.
-

If the system still does not operate properly after performing the above measures, reset the system as follows:

Use buttons on the CD/DVD player for the operation.

- 1 Disconnect the mains lead.
- 2 Reconnect the mains lead.
- 3 Press ■, EQ EDIT and I/⏻ at the same time.
- 4 Press I/⏻ to turn on the system.

The system is reset to the factory settings. You should set the settings you made, such as the preset stations, clock, and timer.

To return the DVD setup to the default settings, perform reset as follows:

- 1 Press DVD SET UP in stop mode.
- 2 Press **↑** or **↓** repeatedly to select “RESET”, then press ENTER.
- 3 Press **↑** or **↓** repeatedly to select “YES”, then press ENTER.
It takes a few seconds to complete. Do not press **I/⏻** when resetting the system.

Messages

One of the following messages may appear or flash in the display during operation.

DVD/VIDEO CD/CD/MP3/JPEG

Cannot Play

- A disc that cannot be played was inserted.
- A disc with an unsupported Region code was inserted.

Cannot Use

You pressed an invalid button.

Data Error

The JPEG file is an unsupported format.

No Disc

There is no disc in the CD/DVD player.

Play Limit

The MP3 file cannot be played.

Push STOP!

You pressed PLAY MODE during play.

Reading

The system is reading information of the disc. Some buttons are not available.

Step Full!

You tried to program 26 or more tracks (steps).

Tape

No Tab

You cannot record the tape because the tab has been removed from the cassette.

No Tape

There is no tape in the tape deck.

Additional Information

Precautions

On operating voltage

Before operating the system, check that the operating voltage of your system is identical with the voltage of your local power supply.

On safety

- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Unplug the system from the wall outlet (mains) if it is not to be used for an extended period of time. To disconnect the power cord (mains lead), pull it out by the plug. Never pull the cord itself.
- Should any solid object or liquid fall into the system, unplug the system and have it checked by qualified personnel before operating it any further.
- AC power cord (mains lead) must be changed only at the qualified service shop.

On placement

- Do not place the system in an inclined position.
- Do not place the system in locations where it is;
 - Extremely hot or cold
 - Dusty or dirty
 - Very humid
 - Subject to vibrations
 - Subject to direct sunlight.
- Use caution when placing the unit or speakers on surfaces that have been specially treated (with wax, oil, polish, etc.) as staining or discoloration of the surface may result.

On heat buildup

- Although the system heats up during operation, this is not a malfunction.
- Place the system in a location with adequate ventilation to prevent heat buildup in the system.
- If you continuously use this system at a high volume, the cabinet temperature of the top, side and bottom rises considerably. To avoid burning yourself, do not touch the cabinet.
- To prevent a malfunction, do not cover the ventilation hole for the cooling fan.

In case color irregularity is observed on nearby a TV screen

With the magnetically shielded type of speaker system, the speakers can be installed near a TV set. However, color irregularity may still be observed on the TV screen depending on the type of your TV set.

If color irregularity is observed...

Turn off the TV set once, then turn it on after 15 to 30 minutes.

If color irregularity is observed again...

Place the speakers farther away from the TV set.

IMPORTANT NOTICE

Caution: This system is capable of holding a still video image or on-screen display image on your television screen indefinitely. If you leave the still video image or on-screen display image displayed on your TV for an extended period of time you risk permanent damage to your television screen. Projection televisions are especially susceptible to this.

On operation

- If the system is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the CD/DVD player. Should this occur, the system will not operate properly. Remove the disc and leave the system turned on for about an hour until the moisture evaporates.
- When you move the system, take out any disc.

If you have any questions or problems concerning your system, please consult your nearest Sony dealer.

Notes on discs

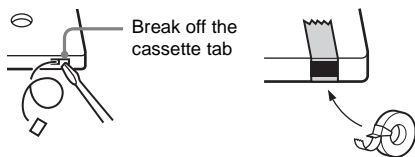
- Before playing, clean the disc with a cleaning cloth. Wipe the disc from the center out.
- Do not use solvents such as benzene, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.
- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight.
- Do not use discs encircled with a protection ring. This may cause a malfunction to the system.
- When using discs that have glue or similar tacky substance on the label side of the disc or that used a special ink when the label was printed, there is a chance that the disc or label may become attached to parts inside this unit. When this occurs, it may not be possible to remove the disc, and may also cause this unit to malfunction. Be sure to check that the label side of the disc is not sticky before using.
The following types of disc should not be used:
 - Rental or used discs with attached seals where the glue extends beyond the seal. The perimeter of the seal on the disc is tacky.
 - Discs that have labels printed using a special ink that feels tacky when touched.
- Discs with non-standard shapes (e.g., heart, square, star) cannot be played on this unit. Attempting to do so may damage the unit. Do not use such discs.

Cleaning the cabinet

Clean the cabinet, panel and controls with a soft cloth slightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as thinner, benzene or alcohol.

To save a tape permanently

To prevent a tape from being accidentally recorded over, break off the cassette tab from side A or B as illustrated.



If you later want to reuse the tape for recording, cover the broken tab with adhesive tape.

Before placing a cassette in the tape deck

Take up any slack in the tape. Otherwise, the tape may get entangled in the parts of the tape deck and become damaged.

When using a tape longer than 90 minutes

The tape is very elastic. Do not change the tape operations such as play, stop, and fast-winding frequently. The tape may get entangled in the tape deck.

Cleaning the tape heads

Clean the tape heads after every 10 hours of use. Be sure to clean the tape heads before you start an important recording or after playing an old tape. Use a separately sold dry-type or wet-type cleaning cassette. For details, refer to the instructions of the cleaning cassette.

Demagnetising the tape heads

Demagnetise the tape heads and the metal parts that have contact with the tape after every 20 to 30 hours of use with a separately sold demagnetising cassette. For details, refer to the instructions of the demagnetising cassette.

Specifications

Amplifier section

European model:

DIN power output at stereo mode (rated)	75 + 75 watts (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)	
Front speaker:	100 + 100 watts (6 ohms at 1 kHz, 10% THD)
Center speaker:	40 watts (6 ohms at 1 kHz, 10% THD)
Surround speaker:	40 + 40 watts (6 ohms at 1 kHz, 10% THD)
Music power output (reference)	
Front speaker:	200 + 200 watts (6 ohms at 1 kHz, 10% THD)
Center speaker:	80 watts (6 ohms at 1 kHz, 10% THD)
Surround speaker:	80 + 80 watts (6 ohms at 1 kHz, 10% THD)

Other models:

The following measured at AC 127, 220, 240 V, 50/60 Hz (Saudi Arabian model only)

The following measured at AC 120, 220, 240 V, 50/60 Hz (except for Saudi Arabian model)

DIN power output at stereo mode (rated)	100 + 100 watts (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)	
Front speaker:	140 + 140 watts (6 ohms at 1 kHz, 10% THD)
Center speaker:	40 watts (6 ohms at 1 kHz, 10% THD)
Surround speaker:	40 + 40 watts (6 ohms at 1 kHz, 10% THD)

Inputs

MD (VIDEO) IN L/R (phono jacks):	Voltage 450 mV/250 mV, impedance 47 kilohms
MIC (phone jack):	sensitivity 1 mV, impedance 10 kilohms

Outputs

MD (VIDEO) OUT L/R (phono jacks):	Voltage 250 mV, impedance 1 kilohms
SUB WOOFER OUT:	Voltage 1 V, impedance 1 kilohms

VIDEO OUT (phono jacks):

max. output level
1 Vp-p, unbalanced, Sync negative, load impedance 75 ohms

S VIDEO OUT (4-pin/mini-DIN jack):

Y: 1 Vp-p, unbalanced, Sync negative,
C: 0.286 Vp-p, load impedance 75 ohms

COMPONENT VIDEO OUT:

Y: 1 Vp-p, 75 ohms
Pb/Cb: 0.7 Vp-p, 75 ohms
Pr/Cr: 0.7 Vp-p, 75 ohms

PHONES (stereo mini jack):

accepts headphones of 8 ohms or more

FRONT L/R:

Use only the supplied speaker SS-WZ8/WZ80/WZ8E

SURROUND L/R:

Use only the supplied speaker SS-RS410/SS-RS400/SS-RS400S

CENTER:

Use only the supplied speaker SS-CT410/SS-CT400/SS-CT400S

CD/DVD player section

Laser	Semiconductor laser (DVD: $\lambda=650$ nm, CD: $\lambda=780$ nm) Emission duration: continuous
Frequency response	DVD (PCM 48 kHz): 2 Hz – 22 kHz = (± 1 dB) CD: 2 Hz – 20 kHz = (± 1 dB)
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB
Video color system format	NTSC, PAL

DVD DIGITAL (OPTICAL) OUT (European and Australian models only) (Square optical connector jack, rear panel):	Optical Wavelength: 660 nm
--	----------------------------

Tape deck section

Recording system	4-track 2-channel, stereo
Frequency response	50 – 13,000 Hz (± 3 dB), using Sony TYPE I cassettes
Wow and flutter	$\pm 0.15\%$ W. Peak (IEC) 0.1% W. RMS (NAB) $\pm 0.2\%$ W. Peak (DIN)

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	
Latin American model:	530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,710 kHz (with the tuning interval set at 9 kHz)

European and Saudi Arabian models:	531 – 1,602 kHz (with the tuning interval set at 9 kHz)
------------------------------------	--

Other models:	531 – 1,602 kHz (with the tuning interval set at 9 kHz) 530 – 1,710 kHz (with the tuning interval set at 10 kHz)
---------------	---

Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

Speaker

Front speaker

European model (SS-WZ8E):

Speaker system	2-way, 2-unit, bass-reflex type, magnetically shielded type
Speaker units	
Woofer:	16 cm, cone type
Tweeter:	5 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 200 × 395 × 260 mm
Mass	Approx. 4.8 kg net per speaker

Other models

MHC-WZ80D (SS-WZ80)

MHC-WZ8D (SS-WZ8):

Speaker system	3-way, 3-unit, bass-reflex type, magnetically shielded type
Speaker units	
Sub Woofer:	15 cm, cone type
Woofer:	15 cm, cone type
Tweeter:	5 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 220 × 415 × 290 mm
Mass	Approx. 7.0 kg net per speaker

Surround speaker

European model (SS-RS410):

Speaker system	1-way, 1-unit, bass-reflex type
Speaker units	
Full range:	7×10 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 81 × 141 × 121 mm
Mass	Approx. 0.8 kg net per speaker

Other models

MHC-WZ80D (SS-RS400S)

MHC-WZ8D (SS-RS400):

Speaker system	2-way, 2-unit, bass-reflex type
Speaker units	
Woofer range:	8 cm, cone type
Tweeter:	4 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 105 × 200 × 120 mm
Mass	Approx. 0.9 kg net per speaker

Center speaker

European model (SS-CT410):

Speaker system	1-way, 1-unit, bass-reflex type, magnetically shielded type
Speaker units	
Full range:	7×10 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 230 × 81 × 121 mm
Mass	Approx. 1.0 kg net per speaker

Other models

MHC-WZ80D (SS-CT400S)

MHC-WZ8D (SS-CT400):

Speaker system	2-way, 2-unit, bass-reflex type, magnetically shielded type
Speaker units	
Woofer range:	8 cm, cone type
Tweeter:	4 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 255 × 105 × 120 mm
Mass	Approx. 1.1 kg net per speaker

General

Power requirements

European model:	230 V AC, 50/60 Hz
Australian model:	230 – 240 V AC, 50/60 Hz
Saudi Arabian model:	120 – 127 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Thai model:	220 V AC, 50/60 Hz
Korean model:	220 V AC, 60 Hz
Other models (without voltage selector):	230 – 240 V AC, 50/60 Hz

Other models (with voltage selector):

120 V, 220 V or
230 – 240 V AC, 50/60 Hz
Adjustable with voltage selector

Power consumption

European model:	235 watts 0.3 watts (in Power Saving Mode)
Other models:	260 watts

Dimensions (w/h/d)

CD/DVD player/Tuner:	Approx. 255 × 135 × 355 mm
Amplifier/Tape deck:	Approx. 255 × 135 × 330 mm

Mass

CD/DVD player/Tuner:	Approx. 3.0 kg
Amplifier/Tape deck:	Approx. 8.5 kg
Supplied accessories:	Remote Commander (1) Batteries (2) AM loop antenna (1) FM lead antenna (1) Speaker pads (20) Speaker cords (5) Video cord (1)

Design and specifications are subject to change without notice.

Language code list

For details, see pages 23 and 24.

The language spellings conform to the ISO639: 1988 (E/F) standard.

Code	Language	Code	Language	Code	Language
1027	Afar	1245	Inupiak	1489	Russian
1028	Abkhazian	1248	Indonesian	1491	Kinyarwanda
1032	Afrikaans	1253	Icelandic	1495	Sanskrit
1039	Amharic	1254	Italian	1498	Sindhi
1044	Arabic	1257	Hebrew	1501	Sangho
1045	Assamese	1261	Japanese	1502	Serbo-Croatian
1051	Aymara	1269	Yiddish	1503	Singhalese
1052	Azerbaijani	1283	Javanese	1505	Slovak
1053	Bashkir	1287	Georgian	1506	Slovenian
1057	Byelorussian	1297	Kazakh	1507	Samoan
1059	Bulgarian	1298	Greenlandic	1508	Shona
1060	Bihari	1299	Cambodian	1509	Somali
1061	Bislama	1300	Kannada	1511	Albanian
1066	Bengali; Bangla	1301	Korean	1512	Serbian
1067	Tibetan	1305	Kashmiri	1513	Siswati
1070	Breton	1307	Kurdish	1514	Sesotho
1079	Catalan	1311	Kirghiz	1515	Sundanese
1093	Corsican	1313	Latin	1516	Swedish
1097	Czech	1326	Lingala	1517	Swahili
1103	Welsh	1327	Laothian	1521	Tamil
1105	Danish	1332	Lithuanian	1525	Telugu
1109	German	1334	Latvian; Lettish	1527	Tajik
1130	Bhutani	1345	Malagasy	1528	Thai
1142	Greek	1347	Maori	1529	Tigrinya
1144	English	1349	Macedonian	1531	Turkmen
1145	Esperanto	1350	Malayalam	1532	Tagalog
1149	Spanish	1352	Mongolian	1534	Setswana
1150	Estonian	1353	Moldavian	1535	Tonga
1151	Basque	1356	Marathi	1538	Turkish
1157	Persian	1357	Malay	1539	Tsonga
1165	Finnish	1358	Maltese	1540	Tatar
1166	Fiji	1363	Burmese	1543	Twi
1171	Faroese	1365	Nauru	1557	Ukrainian
1174	French	1369	Nepali	1564	Urdu
1181	Frisian	1376	Dutch	1572	Uzbek
1183	Irish	1379	Norwegian	1581	Vietnamese
1186	Scots Gaelic	1393	Occitan	1587	Volapük
1194	Galician	1403	(Afan) Oromo	1613	Wolof
1196	Guarani	1408	Oriya	1632	Xhosa
1203	Gujarati	1417	Punjabi	1665	Yoruba
1209	Hausa	1428	Polish	1684	Chinese
1217	Hindi	1435	Pashto; Pushto	1697	Zulu
1226	Croatian	1436	Portuguese		
1229	Hungarian	1463	Quechua	1703	Not specified
1233	Armenian	1481	Rhaeto-Romance		
1235	Interlingua	1482	Kirundi		
1239	Interlingue	1483	Romanian		

Glossary

A.F.D. (Auto Format Direct) AUTO

The auto decoding function automatically detects the type of audio signal being input (Dolby Digital, DTS, or standard 2 channel stereo) and performs the proper decoding if necessary. This mode presents the sound as it was recorded/encoded, without adding any effects (e.g. reverberation).

However, if there are no low frequency signals (Dolby Digital LFE, etc.), it will generate a low frequency signal for output to the subwoofer.

Album

Section of a music piece on a data CD containing MP3 audio tracks.

Chapter

Subdivision of a title on a DVD. A title is composed of several chapters.

DCS (Digital Cinema Sound)

In the collaboration with Sony Pictures Entertainment, Sony measured the sound environment of their studios and integrated the data of the measurement and Sony's own DSP (Digital Signal Processor) technology to develop "Digital Cinema Sound". "Digital Cinema Sound" simulates in a home theater an ideal movie theater sound environment based on the preference of movie director.

Dolby Digital

This sound format for movie theatres is more advanced than Dolby Pro Logic Surround. In this format, the surround speakers output stereo sound with an expanded frequency range and a subwoofer channel for deep bass is independently provided. This format is also called "5.1" because the subwoofer channel is counted as 0.1 channel (since it functions only when a deep bass effect is needed). All six channels in this format are recorded separately to realize superior channel separation. Furthermore, since all the signals are processed digitally, less signal degradation occurs.

Dolby Pro Logic Surround

As one method of decoding Dolby Surround, Dolby Pro Logic Surround produces four channels from two-channel sound. Compared with the former Dolby Surround system, Dolby Pro Logic Surround reproduces left-to-right panning more naturally and localizes sounds more precisely. To take full advantage of Dolby Pro Logic Surround, you should have one pair of surround speakers and a center speaker. The surround speakers output monaural sound.

Dolby Pro Logic II

Dolby Pro Logic II creates five full-bandwidth output channels from two-channel sources. This is done using an advanced, high-purity matrix surround decoder that extracts the spatial properties of the original recording without adding any new sounds or tonal colorations.

- **Dolby Pro Logic II Movie**

The Movie mode is for use with stereo television shows and all programmes encoded in Dolby Surround. The result is enhanced soundfield directionality that approaches the quality of discrete 5.1-channel sound.

- **Dolby Pro Logic II Music**

The Music mode is for use with any stereo music recordings, and provides a wide and deep sound space.

DTS

Digital audio compression technology that the Digital Theater Systems, Inc. developed. This technology conforms to 5.1-channel surround. The surround channel is stereo and there is discrete subwoofer channel in this format. DTS provides the same 5.1 discrete channels of high quality digital audio. The good channel separation is realized because the all channel data is recorded discrete and processed in digital.

DVD

A disc that contains up to 8 hours of moving pictures even though its diameter is the same as a CD.

The data capacity of a single-layer and single-sided DVD, at 4.7 GB (Giga Byte), is 7 times that of a CD. Furthermore, the data capacity of a dual-layer and single-sided DVD is 8.5 GB, a single-layer and double-sided DVD 9.4 GB, and a dual-layer and double-sided DVD 17 GB.

The picture data uses the MPEG 2 format, one of the worldwide standards of digital compression technology. The picture data is compressed to about 1/40 of its original size. The DVD also uses the variable rate coding technology that changes the data to be allocated according to the status of the picture.

The audio data is recorded in Dolby Digital as well as in PCM, allowing you to enjoy more realistic audio presence.

Furthermore, various advanced functions such as the multi-angle, multilingual, and Parental Control functions are provided with the DVD.

File

Section of a picture on a data CD containing JPEG image files.

Film based software, Video based software

DVDs can be classified as Film based or Video based software. Film based DVDs contain the same images (24 frames per second) that are shown at movie theatres. Video based DVDs, such as television dramas or sit-coms, displays images at 30 frames (or 60 fields) per second.

Index (CD)/Video Index (VIDEO CD)

A number that divides a track into sections to easily locate the point you want on a VIDEO CD. Depending on the disc, no indexes may be recorded.

Multi-angle function

Various angles, or viewpoints of the video camera, for a scene are recorded on some DVDs.

Multilingual function

Several languages for the sound or subtitles in a picture are recorded on some DVDs.

Parental Control

A function of the DVD to limit playback of the disc by the age of the users according to the limitation level in each country/region. The limitation varies from disc to disc; when it is activated, playback is completely prohibited, violent scenes are skipped or replaced with other scenes and so on.

Playback Control (PBC)

Signals encoded on VIDEO CDs (Version 2.0) to control playback. By using menu screens recorded on VIDEO CDs with PBC functions, you can enjoy playing simple interactive programs, programs with search functions, and so on.

This system conforms to Ver. 1.1 and Ver. 2.0 of VIDEO CD standards. You can enjoy two kinds of playback depending on the disc type.

VIDEO CDs without PBC functions (Ver. 1.1 discs)

Enjoy video playback (moving pictures) as well as music.


VIDEO CDs with PBC functions (Ver. 2.0 discs)

Play interactive software using menu screens displayed on the TV screen (PBC Playback), in addition to the video playback functions of Ver. 1.1 discs. Moreover, you can play high-resolution still pictures, if they are included on the disc.

Progressive format

Compared to the Interlace format that alternately shows every other line of an image (field) to create one frame, the Progressive format shows the entire image at once as a single frame. This means that while the Interlace format can show 30 frames (60 fields) in one second, the Progressive format can show 60 frames in one second. The overall picture quality increases and still images, text, and horizontal lines appear sharper. This player is compatible with 525 progressive format.

Region Code

This system is used to protect copyrights. A region number is allocated on each DVD system or DVD disc according to the sales region. Each region code is shown on the system as well as on the disc packaging. The system can play the discs that match its region code. The system can also play discs with the “” mark. Even when the region code is not shown on the DVD, the region limit may still be activated.

Scene

On a VIDEO CD with PBC functions (page 16), the menu screens, moving pictures, and still pictures are divided into sections called “scenes”. Each scene is assigned a scene number enabling you to locate the scene you want.

Title

The longest sections of a picture or a music piece on a DVD; a movie, etc., for a picture piece on video software; or an album, etc., for a music piece on audio software. Each title is assigned a title number enabling you to locate the title you want.

Track

Sections of a picture or a music piece on a CD or VIDEO CD. Each track is assigned a track number enabling you to locate the track you want.

VIDEO CD

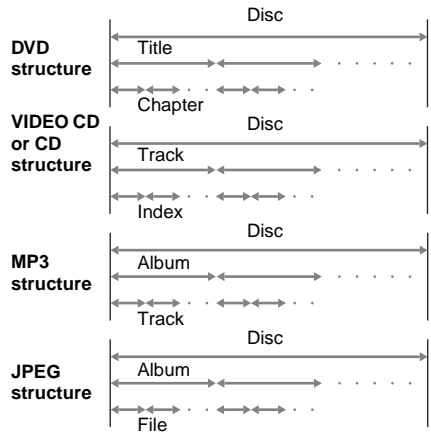
A compact disc that contains moving pictures. The picture data uses the MPEG 1 format, one of the worldwide standards for digital compression technology. The picture data is compressed to about 1/140 of its original size. Consequently, a 12 cm VIDEO CD can contain up to 74 minutes of moving pictures.

VIDEO CDs also contain compact audio data. Sounds outside the range of human hearing are compressed while the sounds we can hear are not compressed. VIDEO CDs can hold 6 times the audio information of conventional audio CDs.

There are 2 versions of VIDEO CDs.

- Version 1.1: You can play only moving pictures and sounds.
- Version 2.0: You can play high-resolution still pictures and enjoy PBC functions.

This system conforms to both versions.



Remote control

ALPHABETICAL ORDER

A - O

ALBUM - [21] (14, 17, 19)
 ALBUM + [22] (14, 17, 19)
 ANGLE [26] (26)
 AUDIO [27] (23)
 BAND [8] (36, 37)
 CLEAR [11] (19, 20, 22)
 CLOCK/TIMER SELECT [32] (48, 49)
 CLOCK/TIMER SET [34] (12, 47, 48)
 COMMAND MODE switch [12] (10)
 DIMMER [30] (50)
 DISPLAY [31] (39, 49, 51, 52)
 DVD DISPLAY [16] (17, 18, 21, 23, 26, 28, 34, 52, 53)
 DVD MENU [22] (16, 27)
 DVD SET UP [17] (12, 15, 24, 26, 29, 31, 35, 61)
 DVD TOP MENU [21] (16)
 ENTER [20] (12, 16, 17, 18, 19, 21, 23, 26, 28, 31, 36, 45, 46, 47, 48)
 FUNCTION [7] (12, 13, 19, 36, 37, 40, 47)
 GROOVE [2] (43)
 KEY CONTROL [5] (43, 46)
 MOVIE MODE [18] (43)
 MUSIC MODE [19] (43, 45)
 Number buttons [28] (15, 16, 20, 22, 25, 26, 28)

P - Z

PLAY MODE/DIRECTION [33] (14, 19, 40, 41, 42, 46)
 PRESET -/+ [24] (36, 37)
 PREV/NEXT [24] (14)
 REPEAT/FM MODE [6] (18, 38)
 SELECT [23] (16)
 SLEEP [35] (47)
 SOUND FIELD [9] (43)
 SUBTITLE [29] (24)
 TUNER MEMORY [5] (36)
 TUNING MODE [4] (36, 37)
 TUNING -/+ [13] (36, 38)
 TV CH -/+ [24] (10)
 TV/VIDEO [3] (10)
 VOL +/- [25] (10, 47)

BUTTON DESCRIPTIONS

I/⏻ (power) [1] (10, 47)
 ◀◀/▶▶ (rewind/fast forward) [13] (14, 36, 40)
 SLOW ◀◀/▶▶ [13] (14)
 ◀◀/▶▶ (go back/go forward) [24] (14, 36, 40)
 ▶▶ (play) [23] (14, 30, 40, 41, 46)
 ⏸ (pause) [15] (14, 40)
 ■ (stop) [14] (14, 40, 41, 46)
 ⬆/⬇/⬅/➡ [20] (12, 16, 23, 28, 33, 47)
 ⏮ RETURN [10] (16, 28)
 TV I/⏻ [36] (10)

